

MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

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WEEKLY.

BALTIMORE, SEPTEMBER 25, 1886.

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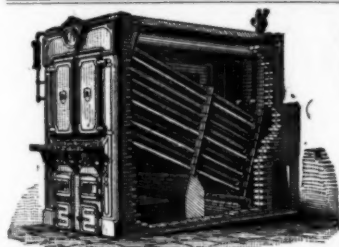
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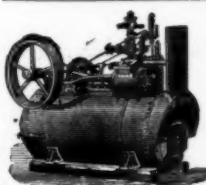
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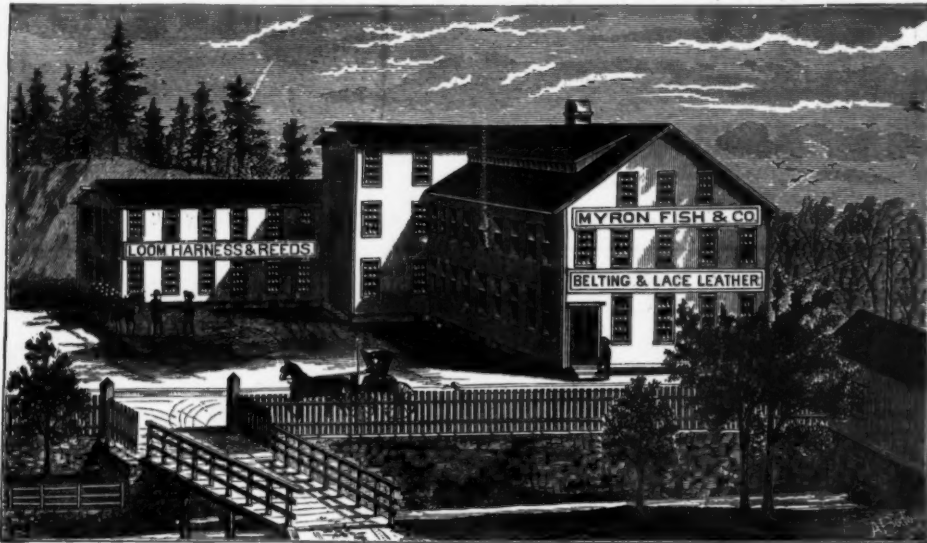
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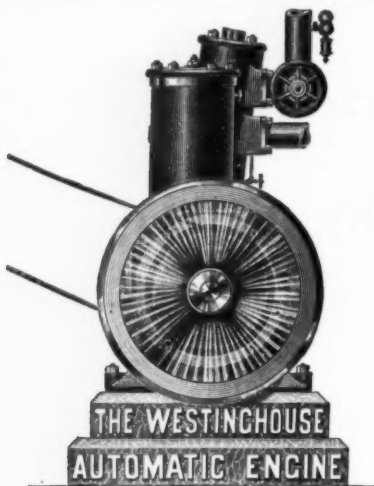
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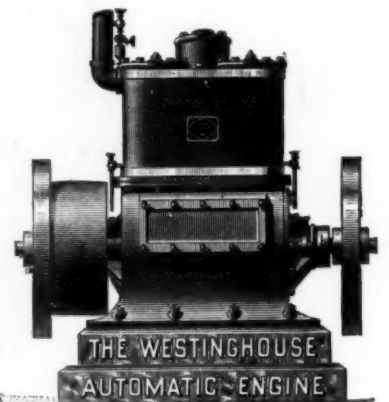
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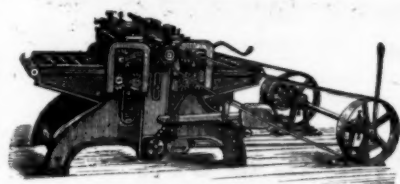
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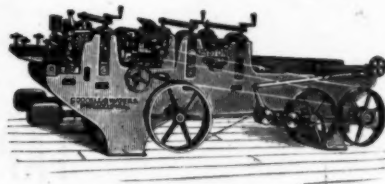
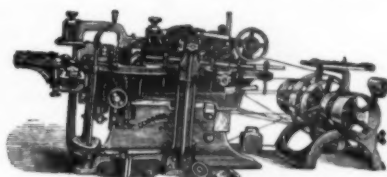
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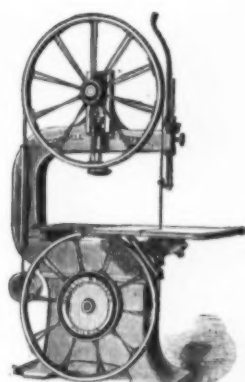
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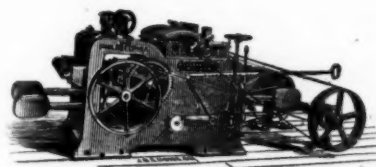
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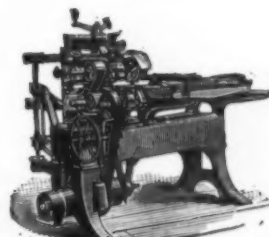
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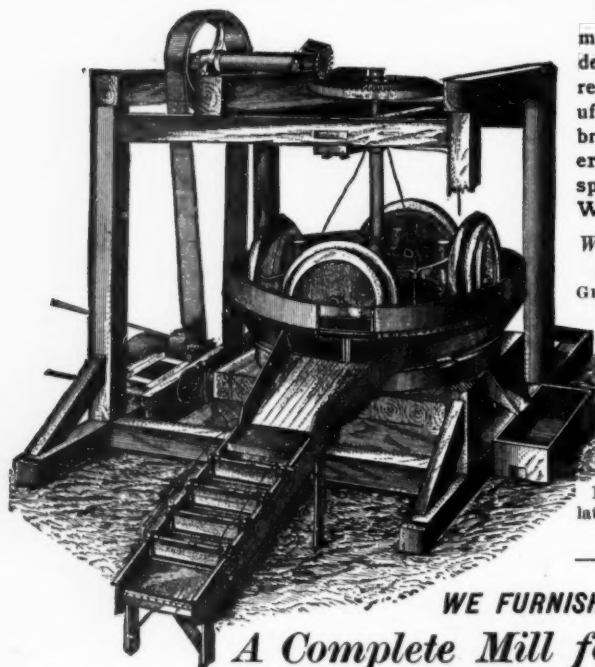
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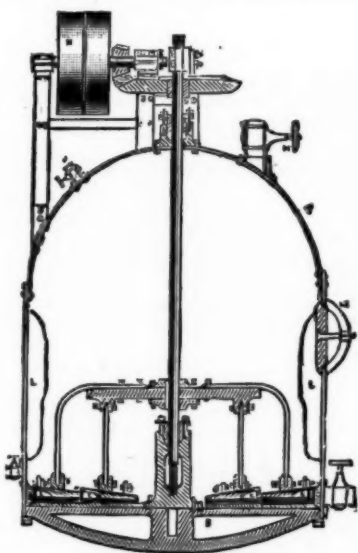
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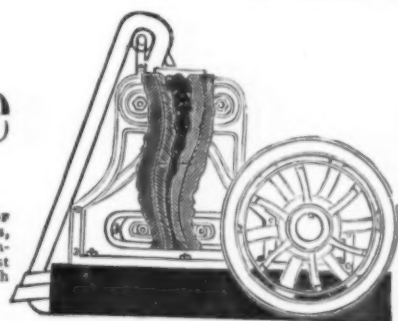


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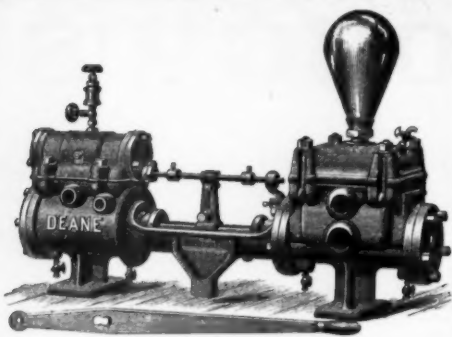
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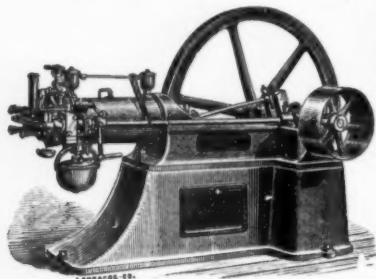
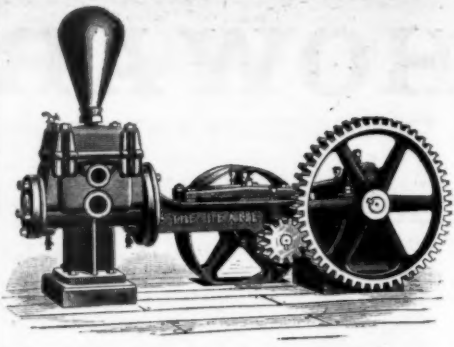
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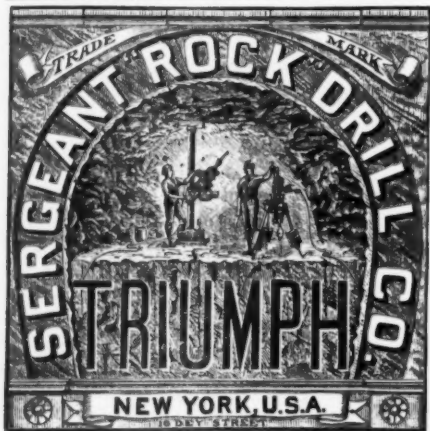
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—BALTIMORE—

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BALTIMORE, SEPTEMBER 25, 1886

Quite to be Expected.

At the risk of being accused of "I told you so" tendencies, the MANUFACTURERS' RECORD feels bound to again to speak plainly as to the necessity for organized educational efforts among the Southern people in connection with the subject of Protection to American Capital and Labor against injurious foreign competition. Readers will remember the earnest attempt we made last year to secure the organization of a Southern Protective Union, and how indifferently the movement was regarded by the people whose duty and interest it was to promote it at almost any cost. It must be confessed that it often looks as if our industrial leaders were incapable of combined or wholesale actions short of the immediate danger of a commercial or financial earthquake. That they find it easy enough to continue in the old grooves of neighborhood, fictional or personal combinations for political purposes is, of course, equally true, but then that is a matter of habit, and a bad one, too. Any departure from old ruts involves a little personal independence, personal thought and action, and it is much easier to go on in the methods of a past generation than to try novelties. We are sorry to say that for the manufacturers, agriculturists and laborers of most Southern localities to forget their old adhesion to the cross roads caucus, and incidentally to the interests of some few antiquated bell wethers of dead and buried opinions and issues, and turn themselves loose in conjunction with like elements of other Southern communities in defence of Southern capital, enterprise and progress, would be a very astonishing thing to witness. In the present state of popular enlightenment on economic questions it would perhaps be rather too good a thing to hope for. All the same, unless means can be found to bring just such state of affairs about, and before very long, the Southern people, whose living and development are dependent upon the untrammelled material growth of the section, will wake up some day to find the industrial New South at the mercy of its worst enemies, the free traders and the Illinois-Ohio-Kentucky whisky monopoly!

The principal reason why, last year, our jeopardized manufacturing interests could not be brought together in a compact union for mutual aid and protection, was that the only immediate danger seemed to lie in the pro-British venom of the Morrison bill, and very few people believed that anything would come of that. Our friends who ought to have come to the front and prepared for the coming battle, which has been only postponed for a short season, rather took it ill that they should be obliged to think, much less to act, against a danger that at the first blush may seem somewhat remote. But is it remote? Since the Congress adjourned we have had cause enough for alarm ament the statistics of gigantic importations of foreign iron ores. We are able to see that, in that as in other directions, the Northern and Eastern tendency is toward all sorts of foreign raw material to meet the competition of Southern production. The Northwestern lumber barons made a desperate effort in the late session to throttle the Southern timber and lumber interest by having Canadian lumber placed on the free list. That effort will be repeated, and with more corruption money at its back, next winter; and so, likewise, will the other demonstrations against protected ores and coals.

We speak of protected ores, but in reality the present duty on iron ores is not any protection, as we have shewn in these columns heretofore. In this instance the South will be criminally blind not to assume an aggressive instead of a defensive attitude. If American labor has any right to protection against foreign pauper, convict and slave labor, then Southern mining enterprise and labor is entitled, on principle, to protection against the pauper, convict and slave iron ore products of Spain, Africa and the West Indies. To ignore this and the duty it involves on the part of Southern Representatives and leading men, in and out of the Congress, is to definitely choke the industrial development of at least the States of Virginia, West Virginia and North Carolina. If we had a reasonable tariff on ore, these States would be called upon to an enormous extent to supply the wants of industry in the Middle and Eastern States. Mines could be opened everywhere, large numbers of working people employed, local markets for farm produce created or enlarged, and the twin interests of agriculture and industry largely benefited.

We have missed by a whole year our opportunity to establish and organize the Southern forces against the greatest combination inimical to home industries and labor that history can shew. It is not exaggerating the matter to say that we cannot afford to wait a day longer. Our revenues are increasing rapidly, and to the terror of the whisky monopolists, who see the nemesis of their wicked war tax system in every treasury re-

turn. They will come back to Washington more desperately determined than ever to destroy protection, as the only hope of an extended existence for the tyrannical internal revenue system. Quite as ominous is the temper with which many Eastern manufacturing interests are disposed to regard the startling steel developments in the Birmingham district! We need not forget that the Spanish and African ores are generally Bessemer, nor that were they on the free list Eastern furnaces would be that much nearer ability to compete with de Barbardeleben, Ensley, and the dozens of Southern steel producers certain to follow them! There is not a doubt that there will be a serious fight to save ore at all, and yet every reason exists why a solid South should stand up and demand an embargo, practically, on all foreign raw material.

If the advice of a few progressive Southern journals had been taken a year ago, a protective league formed and a careful and thorough protection propaganda carried on among the people, we can hardly believe that the Birmingham district would have nominated a free-trade Democrat for Congress. One of our greatest troubles is that while we are idle and indifferent, Northern lumber, iron, steel, whisky and British free trade are busy pushing their literature and missionaries into our remotest settlements. "Cheap wool hats and hoe handles" defeated the protection sitting member from Birmingham and gave the nomination to a rural rival, devoted to cheap wool hats, hoe handles and free trade. Now what is to be done about it? Are not the Southern iron, steel, lumber, coal, sugar and other mining and manufacturing interests of sufficient importance and in jeopardy enough to demand some understanding and unity of action for defence among their exponents? Is it not possible at last to secure some concerted movement that will tend to prepare us for the coming time when the industrial New South shall have to make her fight against the remainder of the Union, and perhaps the world? Is the Southern Protection League an impossibility? If not, then in the name of Southern progress let the people who admit the necessity while they dodge the responsibility step forward and help us to accomplish it.

A Pretty Good Point.

The cotton mill operatives in Augusta, Ga., who are out on a strike for which there seems to be no excuse whatever, as the mills were paying fully as high wages as they could afford, are doubtless in a good deal of want, and so the Augusta City Council some days ago with a disregard of other people's money, appropriated \$1,000 to help to relieve those who were in need. Upon the strength of this, Major Jos. B. Cumming, a lawyer, concluded that he would also petition for a little help, so sent to the Augusta Council the following:

To the Honorable

The Mayor and City Council of Augusta.

The petition of Joseph B. Cumming respectfully shows:

That his occupation is that of attorney and counsellor at law, and solicitor in equity, and he has an office for the transaction of business in the city of Augusta.

That he has a considerable number of clients who are willing and ready to employ him, and who desire his services.

That said clients are willing and ready to pay him for his said services the customary fees, and as much as they can afford to pay.

But your petitioner would respectfully show that he is unwilling to give his services at the customary rates, and has determined, if this, his reasonable petition, is granted, to decline to do so.

Wherefore, inasmuch as your honorable body has by its action of September 6, 1886, declared it to be its policy to furnish relief out of the city treasury to persons in the situation of your petitioner, he humbly prays that your honorable body will appropriate to your petitioner, out of the taxes paid by his fellow-citizens, a sum not exceeding \$1,000, to enable your petitioner to carry out his laudable purpose of declining to be employed as an attorney and counsellor at law and solicitor in equity at the customary rates.

And your petitioner as in duty bound, will ever pray, etc.

JOS. B. CUMMING.

Possibly this way of putting the matter helped to convince the members of the council of the fact that it was an unlawful use of the city's money to aid in keeping strikers from suffering, when their suffering was due to their own obstinacy alone.

Improvement at Anniston.

The advantages of Anniston for manufacturing, as well as a place of residence, are probably not surpassed in Alabama, and while the extensive industrial enterprises located there, with one exception only, are crowded with work, and have been so for a long time, there have not been many new enterprises established there as in some other places during the last twelve or fifteen months. We are glad to learn from the Anniston Watchman that the indications now point to "such an era of prosperity as Anniston has never known before." Every enterprise in the city is said to be running on full time and making money, except the car works, which, the same paper says, are being arranged for work as fast as labor can do it. The trade of the city is put down at a half million dollars greater than last year. The receipts of cotton, it is estimated, will show an increase of seven or eight thousand bales over the past season, and everything else is reported as being favorable for a rapid growth of this beautiful town. If the business men of Anniston would unite with the Anniston Land & Improvement Co. and the Woodstock Iron & Steel Co. in a combined effort to attract attention to the many advantages of their town and would make the same vigorous efforts that the Birmingham people do, with liberal inducements, as in the latter place, of cheap sites for factories and local aid, we doubt not but that in a few years Anniston would be enjoying the same marvellous prosperity that Birmingham is now reaping as the reward of well-directed energy and enterprise.

OUR BIRMINGHAM LETTER.

New Enterprises Starting Up— Matters of Interest About Railroads, Manufactures and Real Estate.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., Sept. 20, 1886.

As might reasonably have been expected, the reports of steel developments in this district, recently and widely disseminated by the MANUFACTURERS' RECORD, have led to the organization of many exploring expeditions in the East, and they have been arriving continually for the past week. Pennsylvania and New York have been most largely represented among these strangers, who have been, without exception, practical and important people identified with iron or steel interests. It is not surprising that many of the investigators referred to should have come to Birmingham prepared to find that the statements regarding steel prospects had been much exaggerated. Wherever this has been the case, however, incredulity has rapidly given place to conviction, astonishment, and finally enthusiasm. In conversations with several prominent iron men from Pennsylvania, I was much interested to notice that they were feeling sore, almost vicious, toward certain Eastern press exponents of their trade, for wilfully keeping them in the dark or misinformed in regard to the great possibilities, resources, advantages and growth of Birmingham and its surroundings. They told me that if they had not believed that the iron masters of this place were really shipping pig metal East and North at an absolute and serious loss, as a "bluff" with which to introduce their wares—as they were repeatedly assured by at least one prominent trade paper was the case—they would not have waited for nearly all the desirable property to be taken up, but would have followed the example of Mr. Sam Thomas and got in a year or so ago. Every one of them with whom I have talked freely admitted that this district is destined to stand as the principal steel as well as iron district of the country in the future.

Since last I wrote you the situation relative to our Basic steel prospects has been considerably simplified and improved by reason of a decision of the Supreme Court of Pennsylvania regarding the Reese Basic patent. Reese, it seems, disposed of his rights under the patent to the Bessemer Steel Association, in which the eminent Mr. Andrew Carnegie is a leading spirit. In some way a default was made in the payment which the association was to make the patentee, which he claimed relieved him from his contract and obligations to the institution generally. He undertook to sell the right to use the process to Col. Ensley, for Jefferson county, Ala., and possibly to others. The Bessemer Steel Association enjoined him, and on motion to make the injunction permanent, the Supreme Court dissolved it. This practically settles the whole question, and whatever rights Reese may have are in a negotiable condition. The Bessemer patents having expired, and the Basic being now available, both processes will be pushed as fast as possible by the iron interest of this locality. We don't do things by halves in this happy valley, and, now that all important obstacles have been removed, everybody is going in for steel. From what can be picked up in the best informed quarters, I should conclude that a number of steel plants of one sort or another, under both American and foreign auspices, will be started before the beginning of 1887.

Coincidentally with the general desire to add steel to our industries, there is a wholesome and strong movement in the direction

of home consumption of pig iron. Almost every day there is an announcement of some new enterprise involving the use of Birmingham pig metal as raw material. The Smith-Woodward Pipe Works at Wheeling—on the edge of the steel town of Bessemer—and the Baxter Stove Works have been already treated of in these columns. In addition, there are a number of plants assured. The Perry Stove Works people, of Troy, N. Y., are understood to have nearly completed their arrangements, and may probably decide on their location within a week. Messrs. Milner & Kettig, one of the most widely known and successful houses in the South in the line of furnace, water works, mill and plumbers' supplies, have just organized a company to put up a \$50,000 plant on the line of Dr. Caldwell's Belt Railway, for the purpose of manufacturing iron pipe, general cast iron work and plumbers' specialties. I have reliable information that a company with \$100,000 capital will be announced within a few days, whose business it will be to manufacture corrugated roofing and other work, stamped iron plate wares and mineral paint. It will probably be a combination of local and foreign capital. The agent of the projectors is now in the market looking to buy a site and secure facilities. It is still understood that another pipe concern is to be established in connection with one of our city furnaces. I do not doubt that one or more large general foundries will be started within a few weeks. Every such establishment already here has so much work ahead that it is difficult to get an immediate order attended to on any terms. That there is ample room and work for several first-class plants additional to what we have is quite beyond question. Raw material and labor are cheaper than anywhere else in the United States, and all that two or three more such concerns could possibly do for the next ten years is plainly in sight. I must not forget to mention that a considerable soap factory has been among the new enterprises of the week.

Interest in trunk line railway matters is rather more quiet, albeit the race to get to Birmingham is still as exciting to the parties most interested as it ever has been. The engineers are about ready to start out on this end of the B. & O. line from Baltimore to Birmingham, and expect to have the section between Birmingham and Dalton, Ga., ready for grading within two months. Should the autumn happen to be a long and dry one, as often happens here, some construction work may be done before winter closes in; otherwise, the building of the road will be commenced early in the spring and pushed to completion. It is understood here that the work on the other end, from Salem, Va., southward, is being arranged for, and will be carried forward fast enough to meet the track layers from Birmingham at Dalton, when we get there. The Georgia Central yet constitutes the Sphinx of the situation. It is asserted variously that the Louisville & Nashville has it sure; that there has been no change at all, and that the Raoul interest is still in comfortable control; that Mr. Jay Gould has gobbled it, and intends to connect the line from Goodwater at Birmingham with a line he contemplates building from Memphis, and so on. Out of all these theories there should be a selection calculated to satisfy the most fastidious taste. The Georgia Pacific work is progressing finely, and the same may be said with truth of the Kansas City, the Birmingham Mineral, and all the other railways under construction.

Steam and mule power urban and suburban tramway projects are just now the favorite fad of our local magnates. I do not believe there is a city of the size on the planet that begins to have the street car service you would find in Birmingham. The system, or network of systems, is spreading constantly. The suburbs of the Highlands on both sides

of the town, Avondale and Elyton all have their rapid transit conveniences. Bessemer, New Pittsburgh, Woodlawn, Pratt Mines and Eastlake will shortly have complete motor service, while the Belt Railway will furnish facilities to industries and railways all around the settlement. The exact route of the Belt line is not yet announced. There are interests not, perhaps, quite friendly to the project. Whether or not the clash will be sufficient to much hamper Dr. Caldwell's movements remains to be seen. As they would say out West, the president of the Elyton Land Co. is built on the "Get thar' Eli" model, and I have yet to hear of his getting left on anything he particularly desired to accomplish. It is to be hoped, in the general interest, that the Belt line may be constructed by somebody, as it is an improvement the benefit of which will be felt and appreciated as railways and railway traffic increase within the limited area available here for such purposes.

There are indications that the new Democratic nominee for Congress may have to do some explaining before he can feel quite secure of the results of the canvass. People from various parts of the district declare that they have understood him to be an anti-Morrison man, and not the free trader the Courier-Journal and other like journals claim him to be. The Birmingham Age, able, Democratic and Protection to the backbone, has the nominee's name at the head of its editorial columns, but is pointedly calling upon him to define his position on the tariff. Col. Long, a Republican protectionist, and a man universally respected here as a citizen, is to run against Mr. Bankhead, and, unless the latter walks up and explains, may give him a hard tussle. I am not prepared to say how far the tariff question might be able to split the Democratic party at this place, but it seems to me very possible that the free trade element may wish they hadn't introduced it. But for that matter, if free trade had anything to do with Capt. Martin's defeat before the convention, it was only in a small way. The result was only one of a combination of all the country divisions against the city, and the blue-jeans had the largest number of votes.

The iron market has been steady again, with still the advancing tendency noted last week. Quotations remain as then reported. Prospects appear to be good for better prices within another month. Prosperity seems to be the rule all over the country, and prosperity is a term always translatable into a free consumption of iron by the people. We have an active and pressing enquiry for pig iron from all points East, North and West. The general tone of other markets, together with the prospects for an increased home demand on account of new industrial enterprises, is stiffening the backs of producers, until they care very little whether sales are made at current figures or not. As to sales for future delivery, their countenances are resolutely set against anything of the sort.

Real estate movements are rather in the direction of suburban than inside property, and there is a good deal of investment in outside places. Sheffield stock is in some demand; Avondale property has been withdrawn from sale; Woodlawn shows a good movement, and so on. A good many of our local operators have been loading up on the strength of belt and other rail or tramway developments. Enquiry on the part of intending manufacturers keeps property desirable for industrial purposes in an active state. In a quiet way there is steady trading in business property. Building improvements are rushing; but, as I ventured to predict some weeks ago, we are going to be hard put to it to provide for

the population during the coming winter. I am told that the household furniture of 200 newly-arrived families is stored in the railway warehouses, the owners being unable to find houses. One of the best fields for profitable investment offered in this district is the building of moderate houses to be rented or sold on easy payments. Security would be perfect, and the operation could net the capitalist quite 10 per cent. on his investment. Here is an opportunity for some of your Baltimore millionaires, who have hard work to find investments for their surplus at 4 or 5 per cent. Kindly ship a few of them down here.

G. B. WEST.

Gold Mining in North Carolina.

[Special correspondence MANUFACTURERS' RECORD.]

BRINDLETOWN, BURKE CO., N. C.,
September 17, 1886.

One of the most extensive and richest belts of free milling gold that has yet been discovered east of the Rocky mountains is that running through Burke and McDowell counties, in this State. There is a continuous line of mines for 16 miles, beginning with the Hancock, which is at the southwestern end of the belt; then follow the Carolina Queen, owned by Massachusetts men, and the Brindletown mines, owned by Capt. J. C. Mills, a native Carolinian. In Mitchell county comes first the extensive property of the Marion Bullion Co., owned by Pennsylvania capitalists, chief among whom is Col. H. C. Demming, of Harrisburg. The Vein View, the northeast terminus, belongs to New York capitalists. With the exception of the first two, all these mines have been for a considerable period scenes of much activity, and have paid their owners well. At the Hancock, up to a recent date, the principal effort has been to reach the vein rock, and in doing this unexpectedly large profits have been realized. Within a few weeks the managers have begun placer mining in earnest, and having an unlimited water supply and a strong head, they are bringing down daily large quantities of paying dirt.

The Carolina Queen, an exceedingly valuable property of 1,500 acres, has never been developed as it might have been, because its owners were capitalists occupied with their individual affairs and unable to give it that attention and supervision that was necessary. They, like multitudes of others who have invested in mining, trusted too much to men they knew little about, and although they had one of the best properties in this district, they got nothing from it. One of the company, an intelligent man of affairs largely interested in other enterprises in North Carolina, and who, after repeated and careful investigation, became satisfied that under honest and judicious management the mine could be made exceedingly profitable, succeeded at last in inducing some of his associates to unite with him in an effort to put the property in good shape for extensive work. A capable mining engineer was instructed to take charge of the property and to make such cuts as were necessary to determine the number and extent of the veins in the partly opened mine. Working with all possible economy, this was done, and 14 true veins of free milling ore were found, which, trending in one direction and nearing each other as they descend, lead all experts who have seen them to believe that they will be found to unite in one at some little distance below. Some 10 days ago another of the owners came to the mine, and after seeing the development thus effected, ordered the mill to be started. There was great joy among the people in this vicinity when they heard for the first time in many months the scream of the steam whistle. It meant work and wages for many men, and fervent were their hopes that everything would be satisfactory to the wise "Boston doctor." To one who, like your correspondent, was unused to such scenes, there was something pathetic in the earnestness of these mining folks, and in

their manifest disappointment when they found that repairs were needed before the stamp mill could begin to pound. But there is always a screw loose when machinery has been long idle. First, the pump would not work. It was taken apart and put together time and again without avail. The native engineer packed and repacked the valves. He is a lay preacher in one of the little cross-road meeting houses, and therefore could not swear; but he looked as if he were on the verge of profanity after every unsuccessful trial, and there were others around in full sympathy with him. Finally, a young New Englander living several miles away came to the rescue, and putting his "gumption" to work, he soon had water running without using the pump at all. A boy driving a steer harnessed to a wooden sled drew the ore down the mountain and dumped it on the rock-crushing floor. A man fed the machine, breaking with a sledge the rocks that were too large for its slowly moving steel jaws. Soon a stream of granulated stone went pouring down under the stamps, whose monotonous beatings were sweet music in the ears of the proprietors and miners. When the former went to the mill the superintendent showed them that it was two inches out of true, and demonstrated that it had been set up in that condition by the agent of the builders. He also showed them the faces of the great pestles, which were more or less broken, and told them that on taking charge of the property he had found them in that condition, although they had been used less than three months. When the pestles began to pound it was evident that his theory of imperfect attrition was correct. The mill was one-sided sure enough. The water squirting through the wire screen all flowed from the center to the left of the incline. None of it touched the right of the plates. Only two of the pestles were doing any effective work. Down poured the water in a thin stream of a coffee and milk hue. Little specks of gold began to gleam on the plates. A sand of the color and consistency of granulated sugar gathered on the riffles and accumulated rapidly in the big box at the end of the tailing trough. Several expert "panners" washed out samples of this and found that a large percentage of the gold remained in these tailings. There was no help for it, however, then. The proprietors' representative was there to see a week's run, and could not afford to stop, pull down the machinery and set it up again. So for a week work continued; then came the clean-up. It was much better than had been expected after the deficient workings of the mill had been seen. Orders were issued for the work to be continued, and meanwhile the Boston gentleman has gone North to interview the mill manufacturers and to report to his associates.

Here let me diverge to write a warning to all men who invest in mining properties at long distances from their homes. Had the superintendent at this mine understood his business or cared for the interests of his employers, he would have seen to it that the stamp mill was in first-rate running condition before he accepted it; and had the agent of the manufacturer been a good, honest mechanic, he would have finished his job in true workmanlike style before he left it. But, after all, the fault as well as the misfortune of this company was that it did not make sure that the superintendent was capable.

Since this property has been in possession of its present owners one shaft has been sunk 54 feet, and a cross cut has been made 6 feet wide and 40 feet deep, connecting with a tunnel that will drain the veins to a depth of 80 feet. This tunnel is 350 feet long, and the 14 veins already mentioned are exposed within a compass of 150 feet. The lower ends of the veins are nearer by 2 feet than at their tops, and are fully double in size. Another cut has been started that will intersect these veins much lower than at present. But while this company has

been at work only in one hill, it has many other veins in its broad acres, some of which are even richer, according to surface indications, than those that have been described.

The property belonging to the Carolina Queen Co. was originally owned in part by three other companies. These were for years profitably engaged in placer mining, and never tried to reach the vein rock. For 40 years the surface has yielded large returns. Before the war nothing was used but the old-fashioned rocker. Since then the same ground has been worked a second time with sluice boxes. But not one-tenth of the surface has ever been touched by the gold seeker. With the tremendous hydraulic power owned by the company, the whole of this surface can be gone over and the gold extracted by the more economical methods of modern times, and after the company has done this, it will still have the veins that have been uncovered in the gulches, more than 30 in number, that extend for more than a mile in a northeast and southwest direction. These veins all run in groups of from four to a dozen, and the groups are about half a mile apart. A powerful branch flows at right angles to them that can be used to drain them on both sides to a depth of from 100 to 400 feet.

Such is the property that has long been lying unworked because of the unfaithfulness or else incapacity of former employees, or of lack of practical knowledge of mining among its owners. While it is as rich as any of those mines in the same belt that have long been paying handsome dividends, it has been a cause of loss of money and patience to its owners, and to some a veritable bone of contention. Were it operated judiciously, as there is now good reason to expect it will be, it would add another to the list of gold-bearing properties that are, by their handsome dividends, renewing the fame North Carolina once had of being at the head of the gold mining States of the East.

B. S. P.

The Cotton Crop.

According to the September report of the United States Agricultural Department, the cotton returns show a vigorous condition of the plant, with lateness and deficiency in fruiting. There has been improvement in most of the States, with decided decline in Texas and a little in Arkansas. The indisputable reduction of condition last month in the South and west of Texas has been emphasized in this return. The average of condition of the crop area, 82, is slightly above that of August 1 for the first time in September in fifteen years. With a long and favorable autumn, it indicates an average crop. Yet a decline in condition after this date is usual. Insects have appeared in most of the States, with little loss so far; more from the boll-worm than from the caterpillar. The State averages of condition are: Virginia, 77; North Carolina, 82; South Carolina, 81; Florida, 83; Georgia, 81; Alabama, 80; Mississippi, 82; Louisiana, 81; Texas, 76; Arkansas, 93; Tennessee, 95.

The plant is in vigorous growth in Virginia, generally bolling well, but late in fruiting, and in danger of reduction in yield by an early frost.

In North Carolina the improvement of August was positive, raising very materially the average of condition and the harvest prospect. Where rain was excessive, complaint of dropping of bolls is made. One correspondent declares that for six weeks the weather was never more propitious for cotton.

The low condition of August 1, caused by excess of moisture, was ameliorated during August as much as could be expected under very favorable circumstances. In rich clay loams, uplands well cultivated, the prospect is very promising; yet there are low-lying lands where the plants lack development and vitality, which can never be much help-

ed by genial weather. The stand is not the best, and the plants are late in development, requiring an unusually long season to mature an average fruitage.

The red lands of Georgia are bearing a vigorous and promising growth. The sandy soils have suffered from drought in some places, following the early rains. Improvement in August is generally reported, increasing somewhat the general average. Lice and rust are reported at many points, attacking plants enfeebled by extremes of heat and moisture. Some correspondents report the crop three weeks late. On some new lands recent rains after a dry spell have improved condition, while on worn fields rust has followed the change. There is also some complaint of shedding of bolls.

In Florida condition was high early in the season, but has been lowered somewhat from the effects of severe storms. Shedding of leaves and bolls has resulted in some sections.

In Alabama the crop was heavily handicapped with excessive moisture, and resulting loss of leaves and fruit, but the more favorable weather of the last month has improved crop prospects. The best lands, however, are yielding good results.

In Mississippi crop conditions have been so favorable as to advance the average condition five points. The more vigorous plants are now fruiting well, and the crop will be large in the best soils that have been kept clean from the start. There is some shedding and some complaint of rust, as in the more Eastern States, where extremes of moisture and temperature have injured the vitality of the plant. The injuries by continuous rains in the time when cultivation should have been active have been severe. Grass choked the plant and dwarfed it, and afterwards, in some places, the extreme of dry weather followed; yet improvement in August has nevertheless been general.

Texas has a wide area in cotton, in Eastern woodland and Western prairie, and in the bottoms of many rivers. Almost always some part of the area is affected by drought, so that the average of condition is scarcely ever as high as in the Mississippi valley. Still the soil is fertile, fresh, and normally averaging high in production. Our vigilant correspondents reported, on the first of August, a reduction in condition in many of the Western and Southern counties, which reduced the average from 97 in July to 88 in August. Ellis county was reduced from 105 to 100, Cass from 94 to 90, Collin from 91 to 85, Henderson from 110 to 100, Johnston from 105 to 75, Navarro from 100 to 95, Kaufman from 100 to 50, Guadalupe from 90 to 75, Limestone from 80 to 75, Tarrant from 100 to 85, and many smaller counties. In the September returns some of these counties report a further and heavier reduction. Guadalupe drops to 40, Limestone to 70, Cass to 65, Collin to 60, Grimes to 80, Jackson from 90 to 60, Lavaca to 50, and others in like proportion. A very few have advanced their averages. Some reports drop to 20, and even to 10, but these have a small acreage. West of the latitude of Austin averages are almost invariably low, generally below 50. Some of the southern counties have low averages. Navarro, in the heart of Texas, has an average of 43. Houston returns 40, Brazos 48. Some counties in the northeast have small averages; Van Zandt 50, Rains 68, Marion 78. Still the increase of area planted and the high average of some of the best cotton lands in the State, with future favorable conditions, will make a large crop.

Arkansas and Tennessee claim the highest condition of any of the States, both indicating crops somewhat above the average. Yet several counties report deterioration by drought, especially in Arkansas, where the general average is reduced three points since August 1st. The bottom lands, which furnish a large proportion of the crop, did very well in August. Hot, dry winds caused some shedding of foliage and fruit in fields that were very promising at the last report.

The Young Men of the South.

Some one recently wrote in a Northern paper a rather disparaging criticism of the young men of the South, and a correspondent of the New Orleans Picayune takes it up and replies in the following vigorous manner:

'Special stress is laid by the paragraph in question upon the aversion by 'the great bulk of our young men' to 'engage in any steady vocation,' and distinctly charges that 'there is a turning away from agriculture as if it were not a calling which promises to patience, energy and industry the very best rewards,' and more of the same general purport. Now, in answer to this sweeping indictment which, mark you, is embraced in a paragraph referring to the young men 'of the New South,' and whether intended to group them collectively or not, has produced that impression abroad, I ask does a vastly augmented annual crop of cotton and other products prove that this generation of young Southern men are sluggards in the race of material progress, or are averse to agricultural pursuits? But this is a proposition answered in the asking, and I pass on to the equally inviting field of individual effort to further refute the over-strained statement of the paragraph under review. It is but a few days since that the papers gave an obituary review of the career of a Southerner to whom Chicago is indebted for her comprehensive system of public works; one 'whose career as a civil engineer forms the best part of Chicago's history since it became a great city.' Again, we can point to numbers of merchants (all in their early prime) in New York city and other Northern communities, progressing, go-ahead spirits, who sprung from the easy-going South, fit types of many others, who, if the golden opportunity ever came, would be found to be of equally as true metal. A short while ago the press of the country rang with the fame of a deceased architect in a Northern city, a Southerner by birth and lineage. Ascending to the higher plane of human effort, we find in the medical firmaments, both North and South, more than one shining light of Southern origin. It cannot be that such noble sires are without worthy scions.

Again, behold the phenomenal strides making by the Southern towns and cities in material progress; to whom else than the young men of the living active present is this attributable? I further point to the momentous facts presented by the South of to-day which are infallibly moulding its future, commercially, politically and in every material sense. See the mechanical and manufacturing developments, the spirit of eager unrest. Behold the irresistible stride of the Prohibitionist movement; observe the better and purer State governments, the tendency to a higher plane of life and activity seen on all sides. Where are we to seek the underlying cause of all this awakening? Who, to-day, I ask, are the leaders in thought and action in every sphere in the South? Unquestionably it is the young element of the New South, with mind to comprehend no less than with energy to execute. The old school, wrapped in their recollections and bitter memories of a former era, are rapidly passing from the stage, replaced by the young element radiant with the hopes, the aspirations and the energy born of youth and the consciousness of great possibilities within their reach. They see the ever expanding view the future presents, and have girded their loins for the journey. The question is one that unshrinkingly invites the most critical analysis. Consider but a moment the grievous obstacles under which Southern youth contended following a desolating war! The disruption of families, the fortunes broken, the educational facilities disorganized, or in many cases wholly denied, chaos that seemed to threaten the very foundations of society itself. Consider impartially all these things, and let me ask does the position of the Southern youth to-day evince no noble purpose achieved, reveal no strength of character to grapple with adverse conditions with a resolution of purpose comparable to any ever displayed in any line of human endeavor? Measured then by these standards, I ask may not our Southern youth invite comparison with those of any land? And do they not promise to contribute their full quota to the ranks of the brainy and forceful men of the country."

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

The Birmingham Soap Works, capital stock \$20,000, has been incorporated at Birmingham, Ala., by W. K. Rosser, G. C. Simpson, C. H. Francis, J. T. Wilson and D. M. Drennen. They will soon erect a factory.

The capital stock of the Alabama Iron Works, Birmingham, Ala., lately reported as incorporated, is \$20,000. Henry Behrns is president; J. Lentz, vice-president, and W. W. Barclay, secretary and treasurer. They will manufacture all kinds of iron.

The Capital City Street Railway Co., Montgomery, Ala., will hold a meeting October 18, to consider increasing their capital stock from \$60,000 to \$75,000.

The Wharton Flour Mills, Birmingham, Ala., contemplate erecting a grain elevator.

S. J. Hare is erecting a mill and gin at Canoe Creek, Ala.

The Milner, Kettig & Bell Iron Works Co., capital stock \$50,000, has been incorporated at Birmingham, Ala., by W. J. Milner, W. H. Kettig, Alfred Bell and H. M. Caldwell, to manufacture piping and plumbers' supplies. They are purchasing the necessary machinery and will erect works at once.

F. J. McCoy, Wilson, Ala., previously reported as erecting a saw mill, will add planing machinery.

Laudman, Scruggs & Co., Huntsville, Ala., will erect a Curry cotton compress. The machinery has been purchased, it is stated.

The Tuscaloosa Manufacturing Co., Tuscaloosa, Ala., are receiving the new machinery for their cotton mill at Cottondale, Ala., previously reported.

William Conant has erected a grist mill at Cullman, Ala.

J. M. Ponder will probably start a brick yard at Clanton, Ala.

J. C. Hughes has started a broom factory at Girard, Ala.

Barrow & Smartt will establish a brick yard at Brewton, Ala.

FLORIDA.

A cigar factory has been erected at Key West, Fla., by Mr. Duffy.

V. Sanchez & Son, St. Augustine, Fla., will erect a large brick building.

The address of P. Kelley, reported last week as having received the contract to build the extension of the Florida Railway & Navigation Co.'s road to Plant City, is Fernandina, Fla. Work is to be commenced at once.

E. W. Codington is erecting a 7-ton ice factory at Bartow, Fla.

J. W. Henderson, Lake De Funiak, Fla., lately reported as to build a saw mill, will also erect a rice mill, sugar mill and cotton gin.

The saw mill of Thorne & Coombs, Welaka, Fla., lately reported as burned, will be rebuilt on a larger scale. They will receive estimates on new machinery for the next 30 days.

J. Lane, Macon, Ga., is advertising for bids for building 50 miles of the Macon & Florida Air Line Railroad, previously reported as incorporated in Florida.

Barrs Bros. will erect a \$23,000 building at Jacksonville, Fla.

Mr. Polly has added planing machinery to his saw mill at Bellview, Fla.

It is reported that the Jacksonville, St. Augustine & Halifax Railroad Co. are building new shops at Jacksonville, Fla.

The Creosote Lumber & Construction Co., Wilmington, N. C., lately reported as incorporated, are prospecting for a suitable location in Florida for building creosoting works.

D. M. Boyd is reported as building a mill at Sanford, Fla.

A saw mill has been erected at Lake Helen, Fla., by Mace & Boardman.

GEORGIA.

The Macon Water Co., Macon, Ga., will soon build a new reservoir.

The Chester, Greenwood & Abbeville Railroad is being extended from Monroe, N. C., to Atlanta, Ga. Julius Mills, Chester, S. C., is president.

J. P. Wilson, Clarksville, Ga., lately reported as erecting a saw mill, expects to erect another one soon. The capacity of each will be 5 M feet per day.

J. King and others will organize a company at Rome, Ga., to build gas works.

W. M. Lowry, J. H. Porter, R. J. Lowry, D. W. Curry and H. W. Grady have incorporated at Atlanta, Ga., the Walter A. Taylor Co., capital stock \$36,825, to manufacture patent medicines.

J. W. Sheldon has the contract to erect a building at Eastman, Ga., for Edward Breitung, to cost about \$12,000.

The Brush Electric Light & Power Co., Savannah, Ga., will add the incandescent system of electric lighting and put in another boiler and engine.

James M. Smith will build a six-mile railroad from Winterville, Ga., to his plantation.

Rufus Carter & Co., Augusta, Ga., previously reported as erecting a tobacco factory, will add a box factory.

It is reported that the brick yard of Bondurant, Jopling & Co., Augusta, Ga., is being enlarged.

The name of the company lately reported as organized at Cedartown, Ga., to erect a cotton compress, is the Cedartown Cotton Compress & Manufacturing Co. T. J. Nicholl is president; G. G. Leake, secretary, and J. O. Hardwick, treasurer. The capital stock is \$10,600. They have purchased a compress and will have it erected by November.

C. D. Leonard has received the contract to build a hotel at Eatonton, Ga., at \$9,435.

KENTUCKY.

The Falls City Varnish Co., Louisville, Ky., Lewis Collins, president, have incorporated with a capital stock of \$50,000.

A \$6,500-brick building will be erected at Covington, Ky., by the La Salette Academy.

LOUISIANA.

The Enterprise Ginning & Manufacturing Co., A. J. Forstall, president, have established a ginnery at 265 Front street, New Orleans, La.

T. T. Elliott will erect machinery near Farmerville, La., for crushing sugar cane.

F. A. Newsom is erecting a steam grist mill and gin near Oakland, La.

MARYLAND.

The contract to build a large freight shed at Bolton depot, Baltimore, for the Northern Central Railroad Co., has been awarded to Philip Walsh & Sons. It will cost \$12,000.

Henry McShane & Co. will build a 4-story brick warehouse on North street, Baltimore.

It is reported that Thompson & Bro., Baltimore, Md., have established a canning factory in Anne Arundel county, Md.

The Maryland Hominy & Coralline Co., capital stock \$42,000, has been incorporated at Baltimore, with Thomas Cassard, George L. Krebs, John Black, William Dugdale, John W. Bay and others as directors.

Work has been commenced on the water works at Union Bridge, Md., previously reported.

NORTH CAROLINA.

Parties in Kinston, N. C., contemplate starting a soap and a starch factory, and want to purchase the necessary machinery. J. M. White can give information.

Avery & Erwin, Asheville, N. C., will put a new 125-horse-power engine in their furniture factory.

W. E. Beville & Co. are erecting a leaf tobacco factory at Greensboro, N. C.

Charles E. Strober is reported as rebuilding the handle factory at Greensboro, N. C., previously reported as burned.

It is stated that C. M. McNett, previously reported as negotiating for the erection of an electric light plant at Greensboro, N. C., will erect it within 60 days.

James A. Fore, F. W. Foster and Charles A. Fore have incorporated at Wilmington, N. C., the Fore & Foster Planing Mill & Sash & Blind Co., capital stock \$8,000.

It is stated that the flour mill of Jones & Ellis, Raleigh, N. C., reported last week as wrecked by a flood, loss \$6,250, will be rebuilt.

Omega Foster will erect a cotton compress at Raleigh, N. C., at a cost of \$25,000. The machinery is being purchased.

Hamright & Ramsay have started a small distillery four miles from Grover, N. C.

J. P. Pasour has started a small distillery in Cleveland county, N. C.

The Charlotte Electric Light Co., Charlotte, N. C., will probably put in new machinery.

The Blackwell Durham Tobacco Co., Durham, N. C., will put a new Corliss engine in their factory.

The R. F. Morris & Son Manufacturing Co., Durham, N. C., will, it is stated, increase the capacity of their tobacco factory.

It is stated that a smoking and a plug tobacco factory are to be erected at Jonesboro, N. C.

SOUTH CAROLINA.

The contract to rebuild the Langley dam at Langley, S. C., has been let to A. J. Twiggs at \$19,300.

The Mount Pleasant & Seaview City Railway Co., previously reported as incorporated in South Carolina, to build a railroad from Charleston to Sullivan's Island, has been organized at Charleston, with R. C. Gilchrist as president, and W. P. Fleming, secretary and treasurer. The contract to build the road has been let to William H. Bell. Work will be commenced soon.

Alexander Stewart & Co. have received the contract to grade the Atlantic, Greenville & Western Railroad, previously reported, from the Saluda river to Piedmont, S. C.

TENNESSEE.

The Lookout Rolling Mills, Chattanooga, Tenn., previously reported as putting in new machinery and building pipe works, will put in five new puddling furnaces.

The capital stock of the Clarksville Electric Light Co., reported last week as incorporated at Clarksville, Tenn., is \$12,000. They will enlarge their plant recently erected.

The Nashville, Chattanooga & St. Louis Railroad Co. (office Nashville, Tenn.) have decided to extend the Jasper branch of their road to Dunlap.

The Park Place Manufacturing Co., capital stock \$2,000, has been formed at Chattanooga, Tenn., to manufacture wire mattresses and spring beds, and do a planing mill business.

F. W. Aldrich, Offutt, Tenn., has purchased a site at Bristol, where, it is said, he will move his veneering and lumber factory.

The name of the company reported last week as chartered in Tennessee, to build a railroad from Morristown to Tazewell, is the Cumberland & Alleghany Railroad Co. A. A. Arthur, of Knoxville; E. H. Herrick, James S. Churchill and others are the incorporators.

The Rossville Street Railroad Co. has been incorporated at Chattanooga, Tenn., by J. C. Roberts, S. E. Green and E. B. Warner, to build a road from Chattanooga to Rossville, Ga.

The Columbia Street Railroad Co. has been chartered at Columbia, Tenn., by Thomas T. Wright, E. C. McDowell, J. T. Craik, E. W. Rucker and J. H. Dews.

A stock company is being formed at Columbia, Tenn., to build an iron furnace. J. T. Craik can probably give information.

John Ferguson, Dayton, Tenn., will develop an iron ore mine.

It is reported that the Crown Mill Co., Kenton, Tenn., will put roller machinery in their flour mill.

John Senter is erecting a cotton gin at Glendale, Tenn.

E. Watkins will erect a large brick building at Chattanooga, Tenn.

TEXAS.

The Marshall Gas & Water Supply Co., reported last week as organized at Marshall, Tex., have contracted with the New York Contract Co. for the erection of gas works. The building of water works is contemplated.

J. West, Paris, Texas, has received the contract to grade 31 miles of the St. Louis, Arkansas & Texas Railroad, previously reported.

VIRGINIA.

A stock company will be organized at Staunton, Va., to establish a foundry and machine shop. M. A. Booker can give information.

Graham & Robinson, Graham's Forge, Va., write us in regard to the rumor referred to last week that they would erect an iron furnace at Foster's Falls (P. O. Jackson's Ferry): "We are making brick and other preparation for building a furnace, if things work favorably after January 1st, but have not fully determined as yet about the matter."

James M. Booker, Jr., Lynchburg, Va., reported last week as to build a \$20,000 tobacco warehouse, has let the contract to John P. Pettyjohn & Co.

The Lone Jack Cigarette Co., Lynchburg, Va., will move their machinery into a new and larger factory.

LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.,

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

The Upper Appomattox Co., Petersburg, Va., will erect a large brick mill.

WEST VIRGINIA.

C. N. Lallance has erected a distillery at Huntington, W. Va.

BURNED.

The gin of L. B. Pender, Navasota, Tex.; lost \$3,000.

Chas. Williams' mill, in Sampson county, N. C., wrecked by a flood.

J. L. Reid's gin in Putnam county, Ga.

The iron foundry of G. B. Rodgers, Denison, Tex.; lost \$2,500.

The gin of T. Connell, near Monticello, Fla.

The gin of S. F. Frazer, near Union Springs, Ala.

The flouring mill and variety works of Moyer Bros., in Upson county, Ga.

The tobacco factory of James M. Barnett, Hartford, Ky.

New Machinery.

KIRKLAND, ALA., Sept. 15, 1886.

Editor Manufacturers' Record:

We bought the mill that was built by the Western Lumber Co. We are adding about \$2,000 of new machinery, and will erect planing mill and dry kilns next year.

UNION LUMBER CO.

New Machinery.

AUGUSTA, GA., Sept. 17, 1886.

Editor Manufacturers' Record:

We have recently put in two new lathes; 1 hydraulic wheel press; one of Hills & Jones' boiler plate planing machines; 1 Bickford drill press or nut tapping machine, in addition to 18 new tools put in during past few years. G. R. LOMBARD & CO.

Will Rebuild Tannery.

MANCHESTER, VA., Sept. 16, 1886.

Editor Manufacturers' Record:

We shall rebuild at once.

A. D. SHOTWELL & CO.

Will Enlarge Works.

CLARKSVILLE, TENN., Sept. 15, 1886.

Editor Manufacturers' Record:

We have just been incorporated for the purpose of enlarging our plant. We now run one dynamo, but intend to put in two or three. Our capital stock is at present \$12,000. CLARKSVILLE E. L. CO.

Erecting Smelting Furnace.

HOT SPRINGS, ARK., Sept. 16, 1886.

Editor Manufacturers' Record:

The furnace in course of erection is to be of about 100 tons capacity of lead and silver ores. I expect to save at least one-half the fuel used in all kinds of smelting when completed. B. F. SMITH.

CHESTER C. H., GA., Sept. 16, 1886.

Editor Manufacturers' Record:

The Chester, Greenwood & Abbeville Railroad will extend from Monroe, N. C., to Atlanta, Ga., by way of Athens or Washington, Ga. This is growing to be a very popular route, and promises to be of great usefulness. JULIUS MILLS, Prest.

Machinery Wanted.

KINSTON, N. C., Sept. 16, 1886.

Editor Manufacturers' Record:

Parties in this place wish to establish soap and starch factories. They would like to buy machinery and employ two first-class men who understand the business. Can you give them any information?

J. M. WHITE.

Building Saw Mill.

CLARKSVILLE, GA., Sept. 13, 1886.

Editor Manufacturers' Record:

I am putting up a small saw mill of the capacity of 5,000 feet per day, and also expect shortly to put up another of the same size and make; also a lathe machine and two shingle machines. J. P. WILSON.

LYNCHBURG, VA., Sept. 14, 1886.

Editor Manufacturers' Record:

I propose to build at once a first-class tobacco warehouse on Elm avenue and 13th street with a capacity of 200,000 pounds daily.

JAMES M. BOOKER, JR.

Will Rebuild Factory.

DANVILLE, VA., Sept. 13, 1886.

Editor Manufacturers' Record:

It is our intention to resume business again at as early a date as possible; the exact time we are unable to state. Our box business we hope to commence in a few days, and as soon as we can put up a building sufficient for both, as in the former instance, will again manufacture furniture.

HEIDELBUCK BROS.

LYNCHBURG, VA., Sept. 17, 1886.

Editor Manufacturers' Record:

The city council has not yet acted upon the question of rebuilding our electric light plant, but think there is no doubt of its being done very soon. C. A. BALLOU, Supt.

Doubling Capacity.

NEW ORLEANS, LA., Sept. 13, 1886.

Editor Manufacturers' Record:

We are doubling capacity, and will soon have our furniture factory in operation.

JOS. SEIDEL & BROS.

Will Manufacture Brick.

BIRMINGHAM, ALA., Sept. 13, 1886.

Editor Manufacturers' Record:

I propose to go to making ordinary building brick on a large scale.

A. K. SHEPARD.

Negotiating for Gas Works.

WEATHERFORD, TEX., Sept. 13, 1886.

Editor Manufacturers' Record:

Our city is negotiating with the New York Contract Co., 206 Broadway, looking to the erection of gas works after the "Macy-Reed" process, but nothing definite has as yet been done. The agent of said company was here some time ago, and we are waiting to hear from him.

JOHN R. MACKENZIE.

Tobacco Factory.

OXFORD, N. C., Sept. 14, 1886.

Editor Manufacturers' Record:

We have organized a smoking tobacco and cigarette factory here under the name Cooper Tobacco Co. J. C. Cooper, Sr., is president, H. G. Cooper, vice-president, and S. W. Cooper, manager. We have a factory ready built.

S. W. COOPER, Manager.

Foundry and Machine Shop.

STAUNTON, VA., Sept. 18, 1886.

Editor Manufacturers' Record:

You are correctly informed in regard to the starting in Staunton of foundry and machine shop. This will be a joint stock company with a small capital, with the view of increasing it as the demand arises. Staunton is a most excellent place for such manufacturing establishments, being well located for the distribution of goods, in the midst of a large supply of iron, coal and coke, and of oak and hickory timber. And the people are now ripe to encourage manufacturing enterprises. The present enterprise is by local capital. M. A. BOOKER.

Remodeling Flour Mill.

CROFTON, KY., Sept. 14, 1886.

Editor Manufacturers' Record:

I am remodeling the mill at this place, and expect to put in eight sets of Mawhood's rolls, making a roller mill out of the present stone mill. Will start about October 7, 1886. Mill is run by steam. The capacity is 50 barrels per 24 hours.

K. J. ENSMINGER.

Erected Large Saw Mill.

WINCHESTER, KY., Sept. 13, 1886.

Editor Manufacturers' Record:

We have erected a saw mill on the K. C. R. R., 45 miles below here, with a capacity of 50,000 feet per day. We have the largest contract of lumber that was ever let to one company in this State, besides several other orders.

CONN BROS.

CHATTANOOGA, TENN., Sept. 14, 1886.

Editor Manufacturers' Record:

We have formed a company, the title of which is Park Place Manufacturing Co., for the manufacture of improved spring beds, cot bed, woven wire mattresses, camp stools; also do a general planing mill business. We start at present with a capital stock of \$2,000.

PARK PLACE MANUFACTURING CO.

SPARTANBURG, S. C., Sept. 16, 1886.

Editor Manufacturers' Record:

I. M. Reznor and A. Armstrong constitute the firm of A. Armstrong & Co. We manufacture furniture, and contemplate making wood pumps. A. Armstrong bought the machine shop of W. D. Fowler, together with engine, boiler and sufficient machines for the manufacture of furniture, etc. Our engine and boiler are 35 horse-power. The property is used by A. Armstrong & Co. for the above-named enterprise.

A. ARMSTRONG & CO.

ADAIRSVILLE, GA., Sept. 18, 1886.

Editor Manufacturers' Record:

I am putting in a new dam and a new water house, and will put in new wheels next summer. Would be glad to have price-lists.

S. R. MCALISTER.

BRISTOL, TENN., Sept. 18, 1886.

Editor Manufacturers' Record:

Mr. F. W. Aldrich has contracted for a site for his veneering and lumber manufactory to be transferred from Offutt, Tenn., to this place about December 1st. He has \$10,000 worth of machinery, and employs 30 to 50 hands. My grain and slate mills here will be in operation in ten days.

W. W. JAMES, SR.

Will Build \$25,000 Compress.

RALEIGH, N. C., Sept. 17, 1886.

Editor Manufacturers' Record:

Mr. O. H. Foster will have the compress for cotton ready for work here by the 25th of October next. It will cost about \$25,000. A street car line will be in operation here by October 20.

J. J. THOMAS.

Machinery Wanted.

WELAKA, FLA., Sept. 12, 1886.

Editor Manufacturers' Record:

We shall rebuild on a larger scale as soon as possible. The loss we would sustain from contracts already entered into compels us to do this, if for no other reason. But as we have the best mill site on the St. Johns river, opposite the mouth of the Ocklawaha, the great cypress region of Northern Florida, we consider it best to put in as large a mill as our means will warrant. Will receive estimates for forty horse-power stationary engine and boiler, double surfacer, shingle mill, saws, belting, head blocks, &c., for next thirty days. THORNE & COOMBS.

SAVANNAH, GA., Sept. 21, 1886.

Editor Manufacturers' Record:

We are about to add a good system of incandescent lights to our present arc light plant, which will necessitate the purchase of another boiler and engine. What we want to purchase more than anything is cheaper fuel.

BRUSH ELECTRIC L. & P. CO.

To Build Gas Works.

MARSHALL, TEXAS, Sept. 13, 1886.

Editor Manufacturers' Record:

The Marshall Gas & Water Supply Co. has been organized with the following officers: E. J. Fry as president; E. Key, vice-president, and W. C. Pierce, secretary and treasurer. The company have closed contract with the New York Contract Co. to put up gas works here to begin in 60 days and finish in 9 months. Water works is also contemplated in the future. E. J. FRY.

JACKSON, MISS., Sept. 16, 1886.

Editor Manufacturers' Record:

The wool and cotton factory are an assured fact. It will be the joint enterprise of Northern capitalists and our own citizens. All the money asked for here was subscribed in two days, and prompt organization and work of building will now soon follow.

WIRT ADAMS.

JACKSONVILLE, FLA., Sept. 17, 1886.

Editor Manufacturers' Record:

The 38-mile extension of the Florida Railway & Navigation Co. has been given to contractor P. Kelly, of Fernandina, Fla., and work will be begun at once.

D. E. MAXWELL.

NASHVILLE, TENN., Sept. 17, 1886.

Editor Manufacturers' Record:

The company chartered to build a railroad from Tazewell to Morristown is the Cumberland & Alleghany Railroad Company. The incorporators are E. H. Herrick, F. Randolph Curtis, J. H. Barnard, James S. Churchill and Alex. A. Arthur.

JOHN ALLISON, Secretary of State.

DE FUNIAK SPRINGS, FLA., Sept. 13, 1886.

Editor Manufacturers' Record:

I am running a grist mill, and am preparing to put in saw mill, rice mill, cotton gin and sugar mill with water power, all of medium capacity.

J. W. HENDERSON.

Building Ice Factory.

BARTOW, FLA., Sept. 17, 1886.

Editor Manufacturers' Record:

The ice factory will be completed inside of 60 days. The capacity is 7 tons per day to start with. Will be built so as to enlarge to 12 tons at very little expense. E. W. Codington is putting this new enterprise in our town.

GEORGE M. HOLDER.

GREENSBORO, N. C., Sept. 18, 1886.

Editor Manufacturers' Record:

Mr. C. M. McNett, agent for the Thomson-Houston Electric Light Co., of Boston, Mass., has been here and proposes to put in a plant within the next sixty days. I will say further in regard to our town that many buildings of various kinds are now going up. Among them is a large building by J. H. Gilmer & Co. for the use of leaf tobacco dealers. W. E. Beville & Co. are putting up a like building. The Greensboro Building Co., W. E. Beville, treasurer, has in process of construction a large three-story brick tobacco factory. Chas. E. Strober is rebuilding the Greensboro Handle Factory, some time since burned. Mr. Thomas Woodroffe, late of Virginia, has just finished and has now in operation a sash and blind factory, and for furnishing contractors' supplies.

H.

Enlarged Works.

CHARLESTON, S. C., Sept. 20, 1886.

Editor Manufacturers' Record:

We have added to our works in Charleston a cooper shop, capacity 250 turpentine and cotton seed oil barrels; also one of same capacity for similar work in Savannah, Ga. The earthquake did us no damage. Trade for our goods is increasing.

STANDARD MANUFACTURING CO.

New Machinery.

ABERDEEN, HARFORD CO., MD., }
Sept. 16, 1886. }

Editor Manufacturers' Record:

I am not putting any rollers in my mill, but am placing a line of patent machinery instead.

M. F. WRIGHT.

[FOR OTHER LETTERS SEE PAGE 230.]

Hoisting Machinery for Miners, Prospectors and Builders.

The Contractors' Plant Manufacturing Co., Buffalo, N. Y., are makers of a machine for raising coal or water out of a shaft, or for general mining purposes, which is worth calling attention to. An engraving of it is shown on this page. It will raise a bucket or weight of 600 to 800 pounds at the rate of 75 feet per minute, and for prospectors' use it has about the same capacity as a steam-power hoisting whim. The machine is made entirely of iron and steel, excepting the sills, and is so extremely simple that it can be readily understood and managed by any miner or person without experience in handling machinery. The hoisting drum is under complete control of the man at the shaft, landing the bucket by operating the

MINING NOTES.

By T. K. BRUNER, Salisbury, N. C.

ISENHOUR MINE.

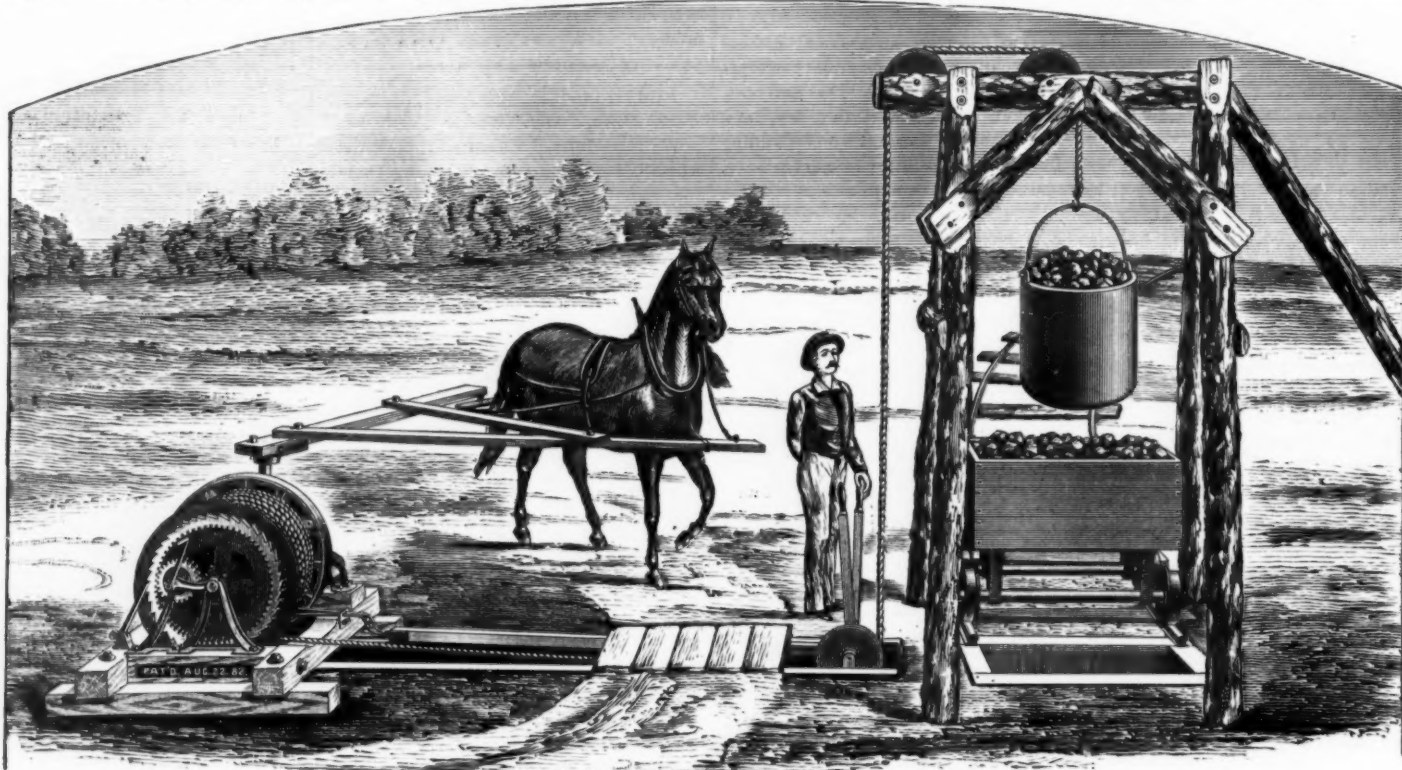
The Isenhour Mine, one of the Gold Hill group, but located within the Cabarrus county line, has been worked recently by Mr. R. L. Holmes, of Salisbury. Mr. Holmes has recently bought an interest in the property, and at once set to work to ascertain by actual test the value of the ores. Ores were extracted and rudely concentrated, not, however, putting more than two in one, and that only by estimate of man in charge at the mine. Twenty tons of this material was sent to the Yadkin Chlorination Works and treated, yielding 588 pennyweights, worth as many dollars. This makes

where it came from," and, of course, compare it with the mills of the gods, which are said to grind slowly. But this granite wheel, as it turns in its granite bed, not only pulverizes the ore, but, with a twisting motion, brightens the faces on the particles of gold, and makes the affinity with the mercury, which is poured in with the ore, a very sure and easy matter. There is no violent agitation of the pulverized mass, but a constant even motion, which is favorable to amalgamation. This mill goes only eight hours per day, and the miller has ample time to mount a cart and haul the ore from the mine to the mill and to clean up in the evening. This shows the economy of the plan. With this outfit the output last week of the Reynolds Mine was 185 pennyweights. That is profitable mining on a small scale. There is ore enough in the vein to supply ten Chillian

work. They are just in good bunches of ore, as was reported last week, so that the new superintendent will have the pleasure of finding everything in good shape on his arrival. He will do well to listen to the old miners, and not rebuff them, as has often been done. Some of the men who have been "raised in the mine," so to speak, can give much valuable information, which has been generally despised by "men of science" fresh from some distant field. The Gold Hill region is one requiring special study, and is full of individuality, geologically speaking.

MADISON'S BARYTA MILL.

Dougherty Bros., of Connecticut, have, near Warm Springs, in Madison county, a plant of machinery for reducing baryta and preparing it for market. They have taken advantage of the abundant water power in



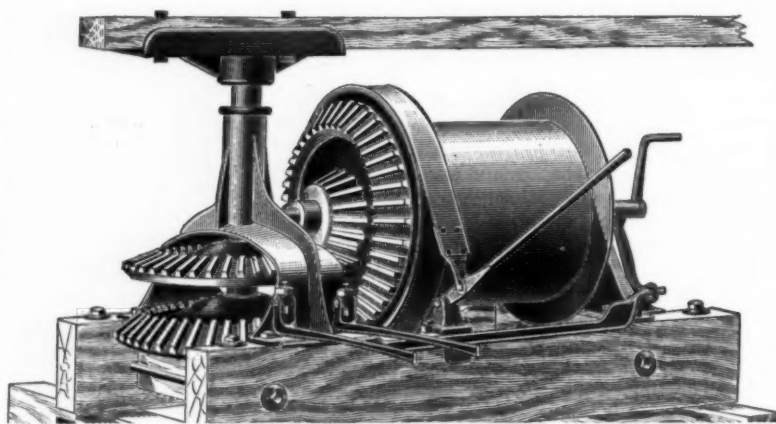
HOISTING MACHINERY.

levers at hand, and by which means the drum can be thrown in and out of gear at will without stopping the horse, or the bucket can be lowered by the brakes as safely and conveniently as by a steam-power hoist. Thus, there are no clutches to throw in and out of gear. The drum will carry 500 feet or more of $\frac{5}{8}$ steel wire rope.

There is a safety attachment on the end of the drum in case of an accident, the dog always being in gear when the bucket is raised. The machine is small, light, easily handled and very durable. All parts are interchangeable, and as no part weighs over 265 pounds, the machine can be taken apart for overland transportation.

The Contractors' Plant Manufacturing Co. make also a number of special machines for the use of contractors, quarrymen and miners. Their No. 4 improved horse-power hoisting machine, patented July 13, 1886, is a combination of fast and slow speed for light or heavy work.

With the fast speed a horse will lift 1,600 to 2,000 lbs. at a speed of 60 feet per minute, or with a single block (slow speed) 3,500 lbs. 40 feet per minute. With the slow speed a weight of $1\frac{1}{2}$ tons with a single line, and with a single block 3 tons; with 2 single blocks 5 tons, and with double and single blocks 7 tons. The speed, single line, is 30 feet per minute, or with single block, 15 feet per minute. Thus, in this combination of gears the user has not only two machines in one, but with it makes a saving in cost and weight. The changing of speed is done in an instant by simply raising or lowering a lever to the left of the machine without being obliged to stop the horse, and is otherwise similar to the other machine described. The manufacturers will furnish any additional information needed.



HOISTING MACHINERY.

the concentrates worth \$29.40 to the ton, and the crude ore worth about half that sum. With thorough concentration, say three in one, this would make a fine chlorinating ore, and amply remunerative for profitable mining. Those interested are very well pleased with the result, though it was smaller than was anticipated. The fact that the ores are of superior grade is demonstrated beyond a quibble, while the quantity is assured from the size and extent of the lode.

THE REYNOLDS AGAIN.

A visit to the Reynolds Mine, in Montgomery county, would impress the student fresh from some "school of mines" very unfavorably. He would see an old-fashioned, one-horse, single-runner Chillian mill, turning with deliberate slowness; in fact, making four revolutions in each minute. He would probably laugh outright and "wonder

mills, and could ten mills be run with the economy which now characterizes the management, it would not take long to acquire a fortune.

GOLD HILL MINES.

The London Mining Journal announces that the Gold Hill Mining Co. have made new arrangements for the management of their property at Gold Hill. They have dispensed with the services of Capt. W. Nance, and have appointed Mr. George Crampton, In. I. M. E., F. C. S., as general manager and superintendent. With him is to be associated an experienced mining captain for underground work. Mr. Crampton combines many accomplishments; besides being a mechanical engineer, is an accomplished chemist and metallurgist. He has had considerable experience in both gold and iron mining. He will reach the Gold Hill property this week and will begin at once to push the

that section and use a turbine wheel to supply the power for crushing the material. The process of reduction is very simple: The material is quarried and transported to the crusher, where it is reduced to sand and gravel size; then it is treated to a sulphuric bath, which clears it of all impurities; it is then given a water bath, which prepares it for the buhr-stones; it is reduced in the mills to an impalpable powder, and is then ready for shipment.

Baryta is largely used in giving body to various preparations of paints and to adulterate white lead. Its specific gravity is 4.3 to 4.7, and it consists of baryta 65.7, sulphuric acid 34.3. It is abundant in the western part of North Carolina.

Good Advice.

To our Southern weekly exchanges: Why in the name of business don't you make your papers readable by publishing what is going on and being done in the business world? Southern timber lands are being bought up for merely nominal prices, and new business enterprises are being established every week. Prospected fortunes are being laid every day, birth-rights are being exchanged for pottage in many instances, and yet, as a general thing, with a very few notable exceptions, our Southern newspapers are filled with—nothing that will interest anyone except a personal acquaintance, or one who resides in the county where the paper is issued. The outside world wants all the facts that can be obtained in regard to the business interests and prospects of every town and county in the South. Why don't the local Southern papers furnish them?—The Southern Lumberman.

The Howland Ore Crusher and Pulverizer.

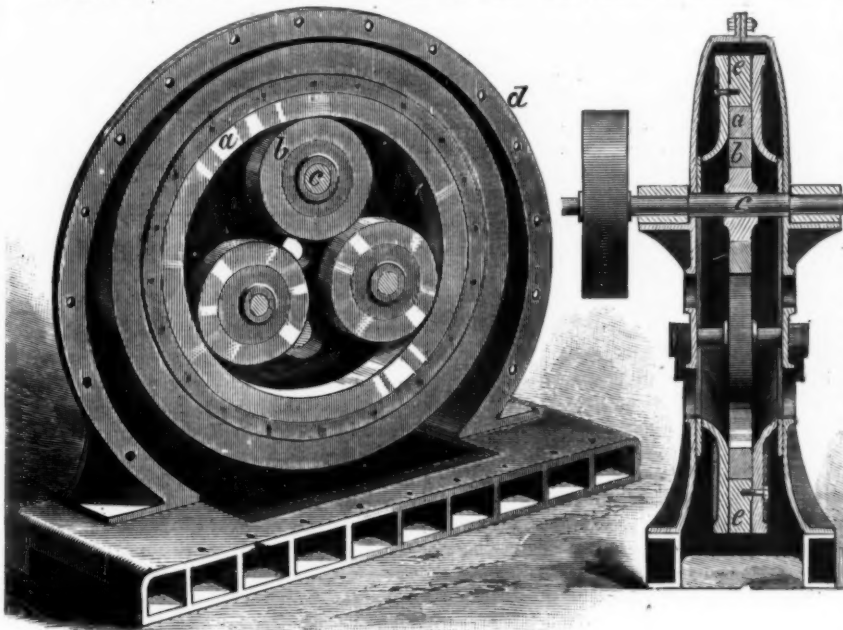
The illustration represents the machine for crushing and pulverizing ores and similar materials, which is characterized by great strength, compactness and simplicity. The engravings show respectively the longitudinal and cross sections, from which the following description will be understood:

The machine is formed of an outer casing, *d*, circular in form and composed of two flanged disc-shaped sections bolted together through their flanges, and to a substantial bed plate. Within the casing is a steel-lined ring, *a*, and disposed within this, in the triangular form, shown in the illustration, are three steel-tired rolls, *b*. The shafts of these rolls revolve in the bearings formed in the outer case. The bearings of the lower two rolls, however, are free to move in vertical slots formed in the case, and their weight borne by the steel ring, *a*, which rests on the upper roll, *b*. The shaft, *c*, of this roll is extended through the casting, and receives the driving-pulley, as seen in the cross sectional view, *a*; the driving-roll, *b*, is rotated by friction; the heavy ring, *a*, which rests upon it, and the rotation of the ring, in turn, turns the two lower rolls, the weight of which rests upon it. The ore or other material to be crushed is introduced

required. Those interested in grinding paints, lead, &c., requiring extreme fineness, would do well to investigate as to adaptability of this mill to their purpose. The mill requires but a small amount of power. They are put together in proper shape, run, adjusted and thoroughly tested before shipping. The mills can be shipped as a whole or in parts, as may be required. One of the small thirty-inch mills is now on exhibition at No. 104 Washington street, New York city, and can be seen and its work examined at any time by application to the patentee, William H. Howland, Room 25, No. 39 Broadway, New York city.

Literary Notes.

"HERMES," after the painting by W. B. Richmond, in the last Grosvenor gallery exhibition, is the frontispiece of the Magazine of Art for October, and is followed by a fully illustrated paper, the IV., on "Current Art," by the editor. An interesting paper gives us "More About Old Charterhouse," with characteristic illustrations. Stanley Lane-Pool writes on "A Venetian Azzimina of the 16th Century," and R. Penderel Brodhurst revives some old "Royal Academy Scandals." R. J. Charleton describes the pretty little fishing village of Cultercoats. The pictures painted for Thomas



THE HOWLAND ORE CRUSHER AND PULVERIZER.

into the space between these rolls, and is carried up by a centrifugal force, and crushed and pulverized between the steel tires of the rolls and the steel lining of the ring.

The action of the machine is positive, there being no slip between the rolls and the ring, the crushing being done, therefore, by the pressure or weight of the ring on the upper roll, and that of the lower two rolls of the ring.

The ground material is passed out from the mill through the slots provided in the rim, *c*. By changing the strips of the metal between the plates of the rim, *c*, the mill can be gauged to work to any degree of fineness. The mill will work either wet or dry material. There are no sliding or rubbing surfaces in the mill, its action, as above described, depending entirely on the weight or pressure of the ring, *a*, on the upper or driving roll, and on that of the lower roll, the rolls themselves never coming together. The action of the mill is, therefore, positive and continuous.

The mill, as will be observed, is very simple in design, and is constructed so as to provide ample strength to all parts to insure durability. When found necessary, the wearing parts may be easily and cheaply replaced by rolled steel rings. The machines are built of any desired capacity, from one to fifty tons per twenty-four hours, and any degree of fineness that may be

Macklin for his numerous literary enterprises are carefully described by Alfred Beaver. The story of "La Bella Simonetta" is told in the series on "The Romance of Art." Coming down to modern times, Claude Phillips describes the work of the late Paul Baudry, and his paper is illustrated with engravings from Baudry's best known paintings, and also with a page portrait of the distinguished artist from the bust by Paul Dubois. Cassell & Co., Limited, New York, publishers.

"HELP AND SYMPATHY FOR WORKING GIRLS" is the title of the opening paper in the October Quiver. It tells of the work of "girls friendly societies which are doing so much good in the land, and is full of suggestions. "Half-a-Day in Baby-Land" describes an institution in England known as "Babies' Castle." This is followed by "A Few Words about Dressing," in which simplicity is urged as against extravagance. The Rev. Wm. Burnett discusses the "Epistles of Christ," while the Rev. T. F. Thistleton-Dyer gives a sketch of Zoroaster as the second in his series on the "Sages of all Ages." "Three Famous Ministers," Beverly, Sherborne and Winborne, are described by pen and pencil. Rev. M. Hutcheson contributes a paper on "Forgetting Things Behind." Archdeacon Gore contributes the fifth of his papers on "The First Three Gospels," dealing this time with the growth of the New Testament.

The Preparation of Cotton for Market.

BY D. A. TOMPKINS.

[Written Expressly for MANUFACTURERS' RECORD.]
NO. 2.

From the time of Whitney's invention to the time of the close of the civil war, there was no demand for other methods and appliances than those previously described. Steam power would have brought responsibility with no commensurate advantage from the planter's point of view. The boiler might explode, and if it did the smallest part of the loss would have probably been the engine and boiler. Two thousand or more dollars worth of negroes might be killed and perhaps many scalded, which latter would make large doctor's bills, labor and attention to nurse them, the special care of the sick being the most particular personal care of the humane planter. Then, too, a steam engine would be getting out of order, repairs would have to be obtained from machine shops, which were few and often far distant. In fact, the planter himself would have to give it some attention, even if he had an ordinary overseer, and the planter had little taste for anything that would require his attention whether he felt disposed to give it or not.

After the war no quick changes came about other than proclaimed and legislated changes. The end of the conflict made the negroes legally free, but they had none of the habits or feelings of free men, and it took time for them to acquire them. The skilled laborers amongst them were naturally the most intelligent and first to attain to the position of obtaining a definite compensation for labor.

The cogs and wallowers used for transmission of power to the gin, wore rapidly and required frequent renewal. When these renewals were made by labor that cost nothing, cogs and wallowers were better than bevel wheels of cast iron as a matter of economy. But when the labor had to be paid for a demand grew at once for bevel wheels. On the large horizontal wheel sections of castings were bolted, making of it a large bevel wheel, and then a cast bevel pinion was put on the horizontal shaft, the two having teeth to mesh properly with each other. The application of cast gearing about a gin house was probably the first move in the direction of saving labor.

The increasing spirit of freedom amongst the negroes often overstepping, after it began to grow, even unreasonable bounds, made it a trying task to get a crop of cotton ginned, on account of the difficulty of commanding together or coaxing together enough of them to form a ginning force.

A spirit of interest began to manifest itself amongst planters for appliances tending to reduce the number of hands or check the annoyances connected with the preparation of cotton for the market.

Wrought band iron rapidly took the place of ropes for binding the bales, both as a matter of economy and safety from fire, the turbulent times growing out of the entrance of the negro into politics making the question of fire risk, which was formerly practically nothing, now an important one.

A mechanical attachment, into which the seed cotton could be put from time to time, and which, with proper adjustment, would feed the gin, now began to appear and find favor on the market. This dispensed with the ginner or his helper, and was called a "feeder." Coincident with the feeder came the condenser, which was an attachment to the gin to catch the lint cotton between two skeleton wire-cloth-bound rollers, delivering it from the gin in the shape of a continuous "bat," instead of like feathers in a gale or like a blinding snow storm. This condenser did away with the lint room hand.

Next came a compact press, capable of pressing a bale by the power of two stout hands. This would be located in the lint room, or at some point outside where the

cotton could be conveniently pushed from the place it was delivered from the condenser directly into the press, either through a door or an opening made for the purpose. This dispensed with the hands to convey cotton from the lint room to the screw, and with the mules and drivers to operate the screw.

During all these changes the negroes were moving slowly towards citizenship. The number of them owning mules was yearly increasing, and the tendency with the planter was to encourage them to rent land and furnish their own live stock, even though purchased on a credit from the planter himself. The feeling of ownership made better care of the stock a result. But it made the matter of getting together enough stock to do ginning in the old way a matter of great difficulty. Difficulties came also about the matter of keeping up repairs. When a planter would adopt the tenant system, whether at once or gradually, then he would disavow any responsibility to furnish facilities to tenants to prepare cotton for market. Co-operative efforts on the part of the tenants to keep up the gin house and screw would fail of good or satisfactory results. By general consent it would be determined that the best arrangement would be for the planter to buy a steam engine, employ an engineer and the necessary hands, and gin for a fixed toll.

These changes may all be said to have forced themselves upon the plantation. They were not the result of any exertion on the part of the planter or the tenant to find better or cheaper methods, but each feature was introduced as a matter of necessity, not as a preferable way, but as an only way the crop could be prepared for the market.

The planter thought himself abused and the victim of poor labor when he would realize he must add to his ginning facilities. But when he established or had forced upon him his right to charge a toll or other fair compensation for these facilities, and determined to hire and pay for the labor in and about the gin house, then did he begin to realize that he was nearing the end of one of his worst vexations.

Industrial changes were not the only ones that were going on all this while. Agricultural methods were being similarly revolutionized. The plantation tools of 1870 were the common wooden plow stock, with a small variety of small iron plow shares; a common weeding hoe, a scythe and a wagon. On the same place in 1880 one would find modern reapers, sulky plows, cotton planters, elaborately made harrows, and such like implements. From the ending of the war to the present time the quantity of commercial fertilizers used has increased from almost nothing to enormous proportions.

Besides industrial and agricultural changes, a greater change still was in progress, viz: the complete political and social revolution of the entire South. Many a conflict betwixt whites and blacks, reported as a ku-klux or political row, was the result of honest differences betwixt employee and employed upon unsettled business questions, aggravated, of course, by political agencies and prejudices.

The wonder is that where so much was transpiring the friction of the changes caused no more trouble than did occur, plenty though there was.

After some experience with steam power, the application of it to operate the press, as well as the gin, soon became common, and from a source of expense, trouble and worry, ginning quickly became, by means of steam power and improved facilities and the application to it of the common principle of compensation for value received, a source of satisfaction and profit.

The tumultuous times and increasing poverty gradually eradicated much of the dignified and easy-going spirit of the anti-bellum Southerner. The question of the economical preparation of cotton for the market began now to receive much intelligent thought. A good steam ginnery was as

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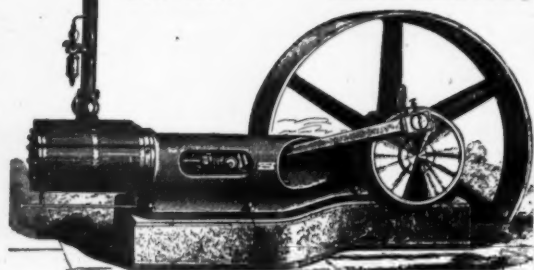
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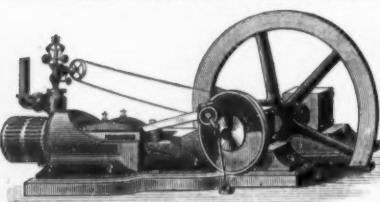
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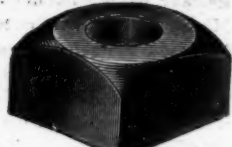
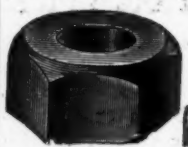


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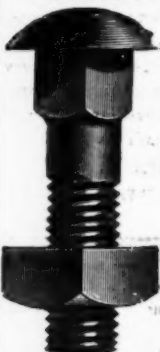
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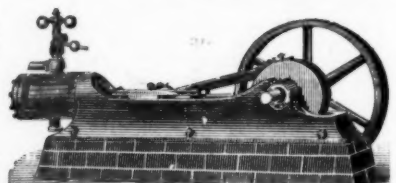
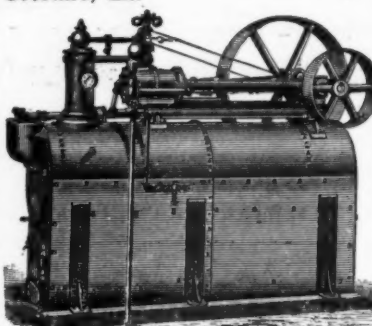
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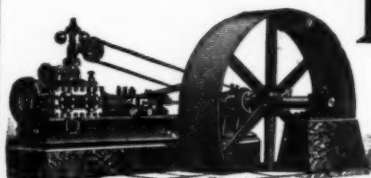
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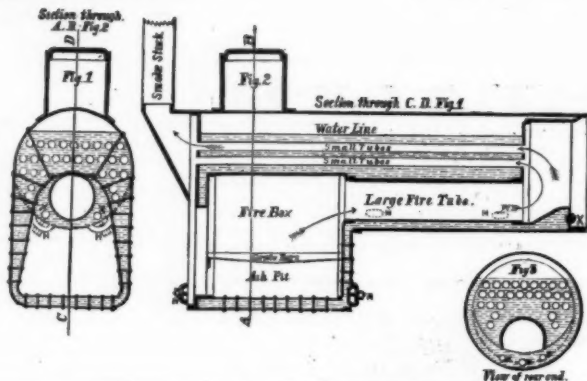
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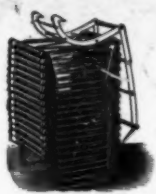
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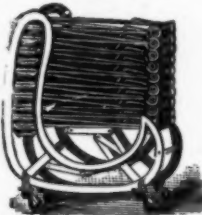
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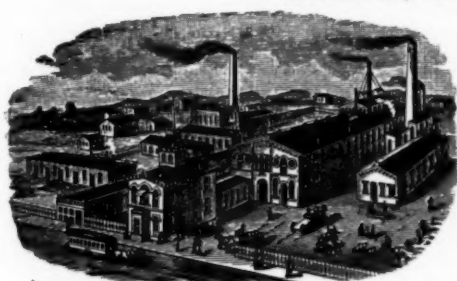
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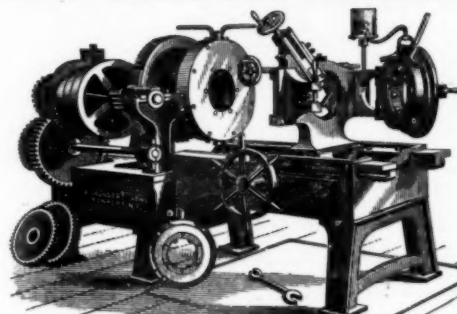
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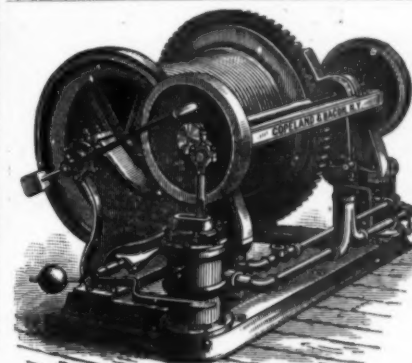
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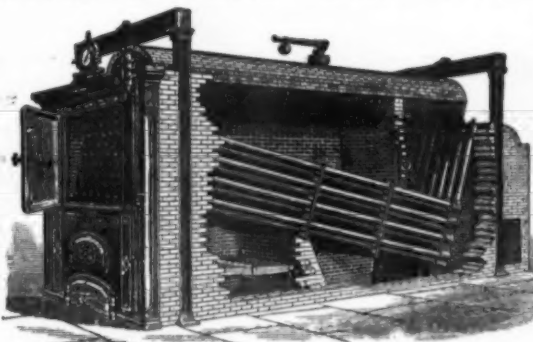
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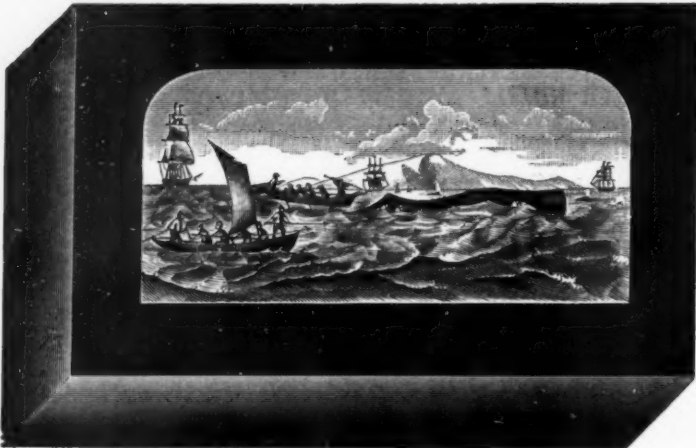
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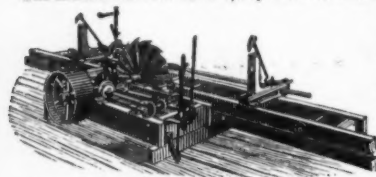
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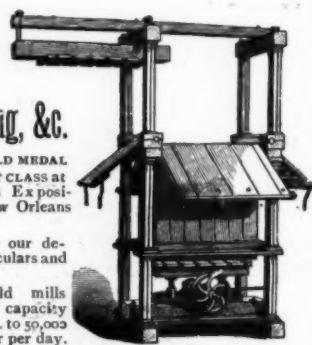
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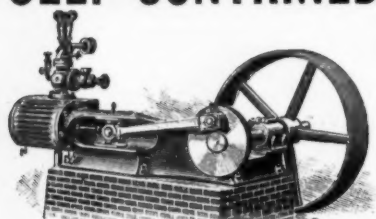
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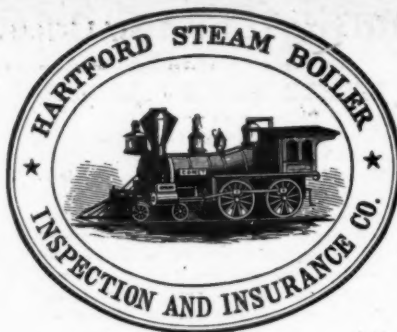
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Pulley Castings and
Machine-Molded

GEARING

A SPECIALTY.

Cleveland, - Ohio.

Estimates furnished. Write
for Gear and Price-Lists A.



THE SCIENTIFIC PORTABLE FORGE

AND

BLACKSMITH HAND BLOWERS.

GUARANTEED

**The Lightest Running! The Strongest Blast!
The Most Durable!**

ADAPTED TO ALL KINDS OF WORK,

Send for Catalogue! **AND MADE IN STYLES AND SIZES TO SUIT.**

THE FOOS MANUFACTURING CO., - - Springfield, Ohio.

The Little Giant Excavator.

—A LONG FELT WANT SUPPLIED.—

For DITCHING, EXCAVATING

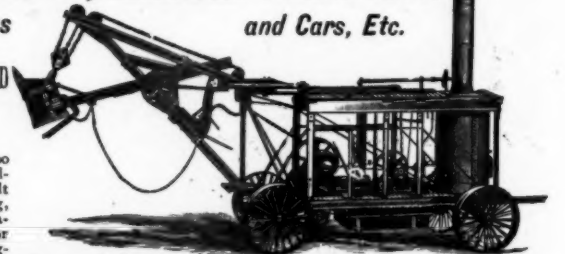
Loading Wagons

and Cars, Etc.

50 TO 100 PER CENT. SAVED
IN LABOR.

Capacity of Machine 500 to 700
cubic yards per day. Self propel-
ling. Easily moved. Being built
entirely of steel, is both strong,
light and a very substantial ma-
chine. Can be used on flat-boat for
dredging ditches, irrigating or dig-
ging canals. Contractors and railroads promptly furnished with estimates for excavators of every description

Address VULCAN IRON WORKS, Toledo, Ohio.



STEEL CASTINGS

FROM 1-4 to 15,000 lbs. WEIGHT.

True to pattern, sound, solid, free from blow-holes, and
of unequalled strength.

Stronger and more durable than iron forgings in any
position or for any service whatever.

40,000 CRANK SHAFTS and 30,000 GEAR WHEELS of
this steel now running prove this.

CRANK SHAFTS and GEARING specialties.

STEEL CASTINGS of every description.

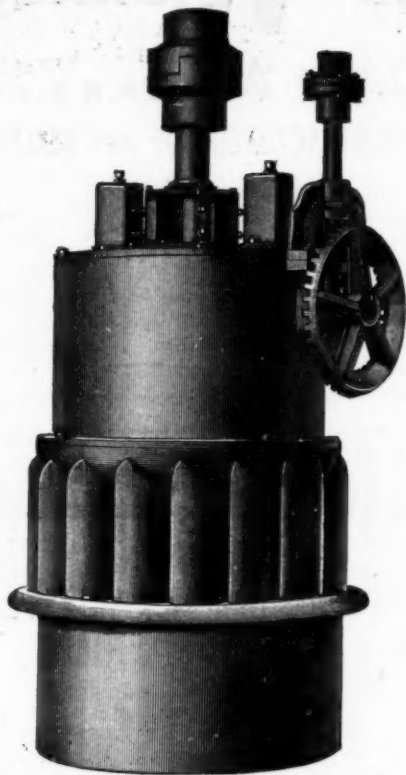
Send for Circulars and Prices to

—CHESTER STEEL CASTINGS CO.—

Office, 407 Library Street, Philadelphia.

Works, Chester, Pa.

THE "HERCULES"



→ GET THE BEST. ←

A good Water Wheel increases the value of your whole plant. Get the best at first and avoid the expense and delay of changing wheels. A good wheel will serve you well for twenty years. The best is the cheapest,—it does more work, lasts longer, and costs no more for gears and setting than a common wheel. The HERCULES gives the most power for its size, and the highest average percentage from full to one-half gate, of any wheel ever made.

SEND FOR CATALOGUE No. 3.

HOLYOKE MACHINE CO., WORCESTER, MASS.

Wheels Now in Use in Holyoke, February 1st, 1885.

Name of Wheel.	Number.	Horse-Power Furnished.
Hercules.....	53	10,576
Boyden.....	38	5,398
American.....	10	825
Tyler.....	10	311
Hunt, Waite & Flint.....	7	375
Rifdon.....	6	440
Jonval.....	4	655
Swain.....	1	160
New American.....	1	65
Aousten.....	1	75
Victor.....	2	150
Total.....	133	19,030

EAGLE & PHENIX MANUFACTURING CO.,

COLUMBUS, GA., Feb. 25, 1885.

HOLYOKE MACHINE CO., STEPHEN HOLMAN, Treas.

Dear Sirs—Within the past four years I have ordered four "Hercules" wheels, all of which have given the purchasers entire satisfaction. Three of the wheels are on regular duty in the Eagle & Phenix Mills. The first wheel ordered did so well that a "Hercules" wheel has been added each time a new wheel was wanted. In Eagle & Phenix Mills I supervise twenty water wheels of six different styles. The "Hercules" is by far the most durable and best made wheel in use here, and, in fact, I know of no wheel its equal, mechanically. It is all that can be desired in economy of water. In fact, it is a strictly first-class wheel in every way, and the wheel to buy, use and depend upon. Yours truly, JOHN HILL.

CONNECTICUT RIVER PULP MILL.,

HOLYOKE MACHINE CO.: HOLYOKE MASS., November 24, 1884.

We are now using 22 "Hercules" wheels, under heads from 12 to 40 feet, and they have always given satisfaction. We have used a variety of Turbines, but where economy in the use of water is required nothing equals the "Hercules." In every respect they are first class.

D. H. & J. C. NEWTON.

GEORGE R. DICKINSON PAPER CO.,

HOLYOKE MACHINE CO.: HOLYOKE, MASS., December 17, 1884.

Gentlemen—We started our mill with three "Hercules" wheels. We raise the gates Monday morning and close them Saturday night. They have never cost us a cent for repairs nor caused us a moment's delay. We want nothing better. Yours very truly. GEORGE R. DICKINSON, Treas.

If you want Shingle, Heading, and Stave Machinery write for Catalogue A. If you want Lathes and Special Machinery write for Catalogue B. We solicit correspondence, and will give it prompt attention. Mention This Paper.



TREVOR & CO.

Lockport, N. Y.

MANUFACTURE

**HEADING
SHINGLE
AND
STAVE
Machinery**

—ALSO,—
LATHES

AND

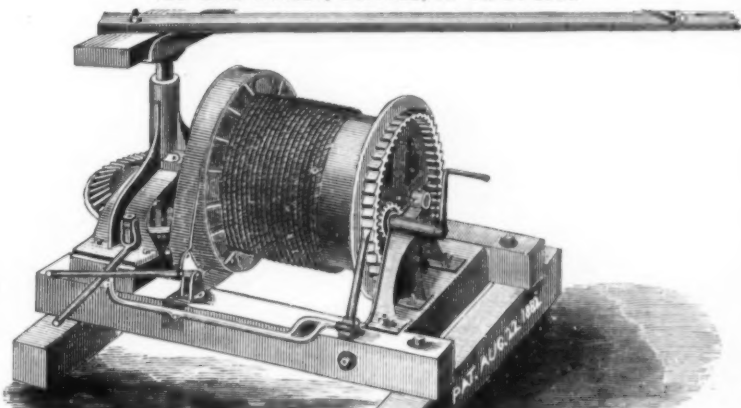
Special Machinery

FOR

**Turning Handles and
all other Turned Ar-
ticles of Wood.**

THE CONTRACTORS' PLANT MANFC. CO.

129 ERIE STREET, BUFFALO, N. Y., U. S. A.



The illustration represents a Horse-Power Hoisting Whim. It is designed for mining purposes or raising coal or water out of a shaft. It will raise a bucket or weight weighing seven hundred pounds seventy-five feet per minute. The machine is made entirely of iron and steel excepting the sills, and is not affected by dry or wet climates. The hoisting drum is under complete control of the man at the shaft, landing the bucket by operating the levers at hand, and by which means the drum can be thrown in and out of gear at will when the horse is in motion, or the bucket lowered by the brakes as safely and conveniently as by a steam power hoist. No clutches to throw out or in gear. The drum will carry 500 feet or more of 3/4 steel wire rope. The machine is **SMALL, LIGHT, EASILY HANDLED** and **DURABLE**, sufficiently strong to do the desired work, and so perfectly simple that it can be readily understood by any miner or person inexperienced with machinery. There is a safety attachment on the end of drum in case of an accident, the dog always being in gear when the bucket is being raised. Easily transported; can be made in sections small enough for mule-back transportation if desired.

We Also Manufacture Horse-Power Hoist for Railway Contractors, Bridge Builders and Quartermen.

Correspondence Solicited. Illustrated Catalogue furnished on application. Mention this paper when you write.

The "GOOD ENOUGH" Family



Lamps are filled direct by THE PUMP without lifting the Can. The Filling Tube adjusting to suit the height of any lamp. Any overflow or drippings are returned to the Can through an opening in the center of the top. When closed the Filling Tube enters this opening, preventing evaporation from EITHER PUMP OR CAN.



OIL AND GASOLINE CAN!

Every Live Dealer should Sell Them.

This is the Most Practical Large Sized Family Can in the market. It should be an object with dealers, when possible, to do away with the annoyance and frequent filling of small cans. A little effort and a slight difference in the price of oil in quantities will insure you a good trade in these cans, and guarantee your customers **Absolute Safety and the Greatest Possible Convenience.**

Winfield Manufacturing Co., - Warren, O.

Send for Complete Circulars and Price List.

TRADE NOTES.

The Standard Watchman's Clock.

This clock has been in use in the United States since 1855. The sole agent in this country is Mr. O. E. Hausburg, 71 Nassau street, N. Y., to whom the U. S. Patent Office has just granted patent No. 344,479, dated June 29, 1886, for an improved dial. This dial has a composition of paste on the back, and when the same is pasted in the record book which goes with each clock, the paste dissolves and sticks through the perforation made by the different station keys, thus bringing out the whole record of the watchman clearly and distinctly. This is a great improvement, and will, it is said, enable the "Standard" to maintain its place at the head of all watchman's clocks. The "Standard" has won twenty prize medals at different exhibitions in various parts of the world, and the manufacturers are constantly adding improvements to make it worthy of the success it has had for so many years. Thus they have lately added the patent centre pinion used by the Waltham Watch Co. for their watches, which prevents any damage to the movement in case the main spring breaks. No other watchman's clock, it is said, can boast of this improvement. It is also provided with a safety lock attachment, (Pat. April 25, 1882,) which marks the paper dial whenever the case is opened, making it impossible for any watchman, or even mechanic, to open the case without detection.

The "Standard" is constructed on the plan of all American watches. If any part is broken or injured, it can at once be duplicated, replaced and no delay is occasioned by having to make such part to order. It is claimed to be the cheapest and most reliable in the market, and is in all cases warranted perfect and satisfactory. Mr. Hausburg delivers the same to any reliable house on trial for 30 days, and his experience is that the "Standard" is always adopted wherever the same is tried.

SALES of the centrifugal pumps manufactured by the Lawrence Machine Shop were made during July and August, 1886, to the following parties: Ware Water Works, Ware, Mass.; Wheeler & Parks, South Braintree, Mass.; Ola Anderson, Concord, N. H.; Brunswick Antimony Co., Glenwood, Mass.; American Print Works, Fall River, Mass.; Messrs. Goich, Zayas & Co., Iquique, Chili; Crystal Spring Dyeing & Bleaching Co., Assonet, Mass.; H. P. Gregory & Co., San Francisco, Cal.; Edwards Manfg. Co., Augusta, Me.; John Post, Jr., & Co., Boston, Mass.; St. Joseph Lead Co., Bonne Terre, Mo.; W. F. & C. F. Sayles, Saylesville, R. I.; John Post, Jr., & Co., Boston, Mass.; Geo. P. Moore, North Chelmsford, Mass.; Providence Worsted Mills, Providence, R. I.; American Printing Co., Fall River, Mass.; Stevens & Co., Haverhill, Mass.

RILEY & GRAY, of Boston, are exceedingly busy with orders for their hardened and tempered steel card clothing, needle pointed and ready ground. A great number of the mills in New England are using this now with fine results. Tops especially give great satisfaction. They take out more dirt, require less grinding and give better work than any other kind.

MESSRS. C. L. JACKSON & CO., who recently succeeded the well-known supply house of Jackson & Tyler, have added to their former business the handling of second-hand machinery. Elsewhere will be found their advertisement containing a list of engines, boilers, hoisting engines, engine lathes, planers, drill presses, etc., of various sizes and makes, and which may be had in good condition at reasonable prices.

MESSRS. A. A. DE LOACH & BRO., Atlanta, Ga., write us that they are still crowded with orders and are working 15 hours a day.

ANDROSCOGGIN MILLS, of Lewiston, Maine, have given their order for roving machinery to Riley & Gray, of Boston.

ONE of the largest displays of wood-working machinery at the Cincinnati Exposition is that of The Egan Co., of Cincinnati, who report a lively business in their line, with many foreign orders. This company is fully up to the necessities of the times, and is constantly bringing out new and improved machinery, illustrations of which can occasionally be seen in the "MANUFACTURERS' RECORD." A complete catalogue will be mailed upon application.

AMONG the interesting machinery exhibits of the Cincinnati Industrial Exposition is that of the Hall Stamp Mill, manufactured by the Lane & Bodley Co., Cincinnati, O., for the patentee, who lives in Dahlonega, Ga. This mill was invented to meet the requirements of Southern ores. It is claimed that it will crush more ore of any character, in proportion to the cost of construction, the wear of iron and power consumed, than any other device on the market for crushing ore. The economical construction, portability and facility of erection are valuable features of this mill. A full description and illustrated pamphlet will be sent upon application to the Lane & Bodley Co., Cincinnati, O.

CORDESMAN, MEYER & CO. have a fine display of their wood-working machinery at the Cincinnati Industrial Exposition, which is attracting some attention. It consists of a scroll saw, band saw, planer, hand sand drum and variety woodworker. They report a growing demand for their machinery, with orders ahead. Their catalogue is worth sending for. Their address is 170 and 172 West Second street, Cincinnati, O.

List of Patents

The following Patents were granted to citizens of the Southern States, bearing date Sept. 14, 1886. Reported expressly for this paper by Louis Raggar & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Anderson, G. K., Memphis, Tenn. Inking-ribbon for type-writing machine.....	349,026
Basham, W. H., Glen Rose, Texas. Combined cotton chopper and scraper.....	349,076
Brickenstein, L. C., and C. A. Babendreier, Baltimore, Md. Device for decanting liquids.....	349,248
Dennis, W. J., Augusta, Ga. Plant and tree culture apparatus.....	349,087
Gilbert, J. T., Amherst court-house, Va. Invalid-lounge.....	349,089
Gooch, Harold, Bonham, Texas. Rein-holder.....	349,154
Gunn, J. C., Knoxville, Tenn. Mail-bag.....	348,965
Hoagland, J. B., Nashville, Tenn. Metallic shingle.....	349,095
Horrue, H. M., Paris, Texas. Spring socket-iron for vehicles.....	349,098
Houston, G. W., and E. F. Mulkey, Savoy, Texas. Motor.....	349,276
Isbester, R. T., Chattanooga, Tenn. Condenser.....	349,103
Jordan, R. W., Mount Sterling, A'a. Corn-planter.....	349,162
Keilholtz, P. O., Baltimore, Md. Arc-light regulator.....	348,977
Keilholtz, P. O., Baltimore, Md. Carbon-holder for electric arc lamps.....	348,978
Keller, D. M., Raphine, Va. Cutting apparatus for mowers and reapers.....	349,105
McCarty, B. W., and F. P. Gagne, Houston, Texas. Support for coffee-mills.....	348,984
Mullins, J. W., London, Ky. Magazine fire-arm.....	349,282
Nolan, Patrick, Birmingham, Ala. Railway-frog.....	349,260
Paul, W. H., Baltimore, Md. Securing bosoms to shirt-bodies.....	349,283
Phillipi, Adile C., New Orleans, La. Attachment for cooking-stoves.....	349,118
Sergeant, B. E., Greensborough, N. C. Feed-work for saw mills.....	349,180
Snyder, J. H., Richmond, Va. Machine for rolling horseshoe blank bars.....	349,182
Surrat, Geo., and H. Heyman, Gainesville, Texas. Apparatus for forcing beer from kegs.....	349,012
Sylvester, W. W., Chattanooga, Tenn. Mail-bag fastening.....	349,067
Thomas, Franklin, and G. M. Kay, Letart, W. Va. Horse-detacher.....	349,127
Tipton, P. S., Anson, Texas. Gates.....	349,187
Weiserdinger, E. U., Comanche, Texas. Coffee-mill attachment.....	349,021

PATENTS FOR INVENTIONS

(American and Foreign.) Trade Marks, etc., procured through the agency of

Arthur C. Fraser & Co.

TEMPLE COURT, NEW YORK CITY.

(Entrance 5-7 Beekman St.) Hand-book of information sent free to any address.

Business Chances.

For the purpose of making the **MANUFACTURERS' RECORD** a still more valuable medium of communication between its readers North and South, we will publish, **FREE OF CHARGE**, short advertisements, not exceeding 40 words, from those in the South who have good business openings that they wish to bring to public notice, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers, superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the **Baltimore Manufacturers' Record**. Parties advertising in this column must have replies sent to their own address, and not to care of **Manufacturers' Record**, unless stamps are sent for forwarding replies. Advertisements sent not in accordance with this requirement will not be inserted.

A RARE OPPORTUNITY.—Wanted.—A good business man, mechanic or otherwise, with energy and push, and from \$50,000 to \$75,000 capital, to purchase a half interest in a thriving and prosperous machine works in one of the most important cities in the South. Capital wanted to increase business, having been obliged to decline more contracts during the year than were accepted. No competition in this particular line south of Chicago. Apply to **BALTIMORE MANUFACTURERS' RECORD**.

CAPITAL to invest in the South. Parties writing will please state full particulars. Address Investment, care **MANUFACTURERS' RECORD**, Baltimore, Md.

A CHANCE SELDOM OFFERED.—For Sale, a controlling interest in one of the best printing offices in the South. Publishes two nine column papers. In grand locality for business, and the office is new and well patronized. Employs 20 to 25 hands in the winter season. \$25,000 cash needed only or will exchange for property in the North. Sold on account of failing health of the advertiser. Address, B. C. F., care **MANUFACTURERS' RECORD**, Baltimore, Md.

FOR SALE.—Iron mine, situated three miles from railroad, near Asheville. Good grade for tramway. Ore rich; has been worked to good advantage. Lime quarry four miles distant, on railroad. For further particulars inclosing stamp, address A. J. Lyman, Asheville, N. C.

WANTED.—By a practical pressed brick maker, capital to manufacture brick in the South. Best place in the United States; brick sell at \$7.00 to \$16.00 per M. No limit to demand. C. B. Chase, Sheffield, Ala.

\$10,000 WANTED for one or two years in a manufacturing concern in the South. Can give satisfactory security, either real estate or collateral. Will pay a good rate of interest. Address, A. T., care **MANUFACTURERS' RECORD**.

WANTED.—Capital to build the Dennis Cotton Worm and I-sect Destroyer—patent just allowed—or will sell the patent. It will kill the insects on all farm crops, and at the rate of 20 to 50 acres per day. Address, W. J. Dennis, Augusta, Ga.

TOBACCO MANUFACTORY in the best tobacco section of Kentucky, at intersection of Memphis Branch L. & N. and O. & N. Railroads. This is a splendid point for above business. A building well adapted can be procured. Address I. C. Barclay, Russellville, Ky.

FOR SALE AT A GREAT BARGAIN.—A planing mill and fixtures, with 30 horse-power automatic engine and boiler. This property is situated on the railroad, in the most go-ahead and thriving town in North Carolina, and is a splendid opening for an enterprising party. For particulars apply to Walter B. Gwyn, Asheville, N. C.

WANTED.—A practical foundry man, with 4,000 to 5,000 dollars, to take an interest in a machine and boiler works in a Southern city. A splendid opening for the right man. Address, Practical, care **BALTIMORE MANUFACTURERS' RECORD**.

WANTED.—Partner or lessee for a sanitarium on Catawba river; unsurpassed climate, scenery and water view; best water power; 100 k farm, meadows and grasses; gold vein; 1,500 acres, seven water, every variety of timber; 12 miles from Charlotte, N. C. Address Mrs. Dr. J. M. Davidson, Mountain Island, Gaston Co., N. C.

FOR SALE at a bargain.—Stock of hardware and store fixtures in one of the best towns in Middle Tennessee. Pleasant location and good business. Address Jno. O. Carter, Pulaski, Tenn.

WANTED.—A party with one or two thousand dollars to engage in manufacturing. For information address Lineback & Brooks, care of J. T. Patrick, Raleigh, N. C.

TIMBER MERCHANTS.—Will find Apalachicola, Fla., the finest opening in the South. Inexhaustible supply of yellow pine and cypress, which can be procured at cheap prices. Sticks measuring three and four thousand feet of merchantable lumber brought to market. Enquiries answered by H. W. Johnston, Apalachicola, Fla.

ONE of the finest opportunities offered to party with small means who desires a half interest in an established sash, door, blind and moulding factory. The factory is now running to its fullest capacity, and orders far ahead are always on hand. Address J. B. Makepeace, Sanford, N. C.

OPPORTUNITY.—Riverside Station, Shenandoah Valley Railroad, Rockbridge county, Va., is a good point at which to locate any manufacturing enterprise working wood and iron material. Arrangements can be made for water power if desired. Address J. C. Shields, Staunton, Va.

A VALUABLE water power and 500 acres of land, on which is several deposits of very fine marl, which might be manufactured into fertilizer. For information address A. J. Potter, Town Creek Post-office, N. C.

THE inventor of a corn planter wants money to patent it. Has used it himself four or five years, constantly improving on it. It will plant corn, peas and cotton and is a success. Will give an interest in it to anyone who will furnish money to have it patented. Address, George W. Moon, Sparta, Bienville Parish, La.

WANTED.—A partner to take interest in fruit and nursery business. Address, E. E. Forsyth, Raleigh, N. C.

WANTED.—A practical paper manufacturer with some capital, to assist in running a paper mill for working refuse sugar cane fibre. Mill is erected and in running order, on a large sugar plantation, on railroad and river in Louisiana. Address K, Box 3,330, New Orleans, La.

MECHANICAL ENGINEER and draughtsman competent and reliable, experienced on machine tools, hoisting machinery, turbines, mining machinery, etc., desires situation. Address, Peta, P. O. Box 228, Torrington, Conn.

A MECHANICAL ENGINEER, Draftsman and Machinist, with eleven years practical experience in designing and construction, and capable of taking charge of shop is open for engagement; will go to any part of the South. Best of references. Address, M. E., care **MANUFACTURERS' RECORD**.

WOODEN PIPE MANUFACTURERS.—Mr. C. G. Viole, of Salisbury, N. C., wants to correspond with some foreman or skilled workman in a wooden smoking pipe factory.

READ.—Green Forest, Va., has two railroads, fine water power, great abundance of soft and hard wood, wool, iron and manganese ores. Before you decide where to build your factory or furnace, address B. C. Moomaw.

FOR SALE.—Two miles from the thriving town of Hickory, N. C., on the Catawba River, a water-power—two hundred horse; partially improved; 100 acres land; a good business chance for investment. For particulars, apply to Hall Brothers, Hickory, N. C.

WANTED.—A partner with \$2,000 or \$4,000, to take interest in a sash, blind, furniture and handle factory. Splendid water dam and bay. Buildings nearly ready. Timber of all kinds at hand and cheap. Would prefer a practical wood-worker. Good market. No competition. Fine home. Address, A. P. Kelly, Tazewell C. H., Va.

WANTED.—A man thoroughly competent in general iron work and one capable of superintending a number of men. Address, W. T. Bradford, Springfield, Ohio.

WANTED.—A Partner with \$3,000 or \$4,000 to take an interest in a sash and blind factory with planing mill attached. Good opening for a good man. Would prefer a first-class architect competent to superintend work. Address J. W. C., care **MANUFACTURERS' RECORD**.

The HYATT PURE WATER SYSTEM.

Adapting Nature's Process—Endorsed by the Highest Authority.

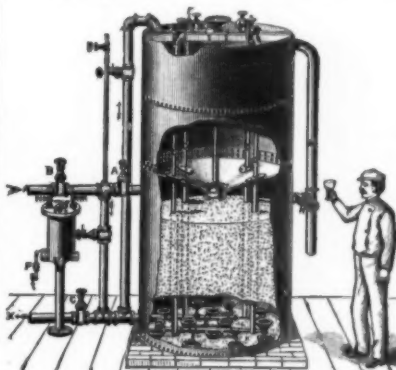
A Perfect Water Purifying System.

In constant use by Cities, Towns, Water Companies, Factories, Mills, Steam Boilers, Public Institutions, Private Residences.

Indispensable to Textile Manufacturers. Adapted to every condition requiring **Clean, Bright Water in any quantity.** Perfect in Operation. Quickly Cleaned Automatically. Reliable. Indestructible.

Muddy Water Made Clean. Hard Water Made Soft.

Organic and semi-soluble elements removed. **Scale and Mud Deposits in Boilers Prevented.** With hundreds of plants in operation, treating all kinds of water, our system **HAS NEVER FAILED.** Promised Results Guaranteed. Adopted by Somerville & Bar tan N. J. Water Co.; City Water Co., Belleville, Ill.; Water Works, Charleston, W. Va.; Clark Thread Works, Newark, N. J.; Earl & Wilson, Troy, N. Y.; Norfolk & N. B. Hosiery Co., New Brunswick, N. J.; Victor Knitting Mills, and sixteen other knitting mills, in Cohoes, N. Y.; Hon. Daniel Manning, Albany, N. Y.; Western Steel Works, St. Louis, Mo., and hundreds of others. **Representative Agents Wanted.** For Circulars, Prices, &c., Address



THE NEWARK FILTERING CO., Tribune Building, NEW YORK.

OFFICE MANUFACTURERS' RECORD, }
BALTIMORE, Sept. 22, 1886. }

The whole iron trade situation is in a more satisfactory condition than at the writing of last report. Bar iron is up one-tenth at both mills and stores. Nearly all kinds of rolled iron are bringing fractionally better prices for small lots for early delivery. Steel rails are \$34 for spring delivery, and \$34.50 to \$35 for winter delivery. Steel blooms are saleable at \$25, but nothing is doing at \$26, the asking price. Old rails are in very active demand at \$21 to \$22, with plenty of stocks coming across the water. A large amount of pig iron will be contracted for during the next two weeks, to cover the requirements of contracts recently secured by bridge builders, car makers,

Hanging Rock, strictly cold blast.....	25	00@26 00
Hanging Rock, strictly warm blast.....	21	00@21 50
"Cranberry," N. Carolina Warm Blast.....	—	@23 50
Amberst and Virginia Warm Blast.....	20	00@21 00
Lake Superior Charcoal, all grades.....	23	00@24 00

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1873

WHITINSVILLE SPINNING RING CO.
WHITINSVILLE, MASS.
U.S.A.

MANUFACTURERS
OF
SUPERIOR
SPINNING TWISTER RINGS

To Secure SOUTHERN TRADE
ADVERTISE IN THE
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SAML. G. B. COOK & CO., HARDWARE

MANUFACTURERS' AGENTS

63, 65, 67 and 69 German St., BALTIMORE, MD.

AGENTS FOR

American Screw Co.—Screws, Rivets, Bolts, etc.
Branford Lock Works.
Buckthorn Fence Co.—Buckthorn Fencing.
Blair Manufacturing Co.—Easy Lawn Mowers.
Boss Molasses Gates.
Buffalo Hammer Co.—Cast Steel Hammers.
C. S. Bell & Co.—Farm Belts.
Carr & Crawley.—Shelf and Saddlery Hardware.
Clark Bros. & Co.—Bolts.
H. Chapin's Sons.—Planes, Rules, Levels, etc.
John Chatillon & Son.—Spring Balances.
R. S. Clark & Co.—Hand and Sleigh Belts.

A. Field & Sons.—Tacks, Finishing and Shoe Nails
Gooch Freezer Co.—Peerless Freezers.
H. C. Hart Manufacturing Co.—Shutter and Spring Hinges, Screen Frames, &c.
Hubbard & Co.—Axe, Shovels, Hoes and Saws.
Kimball's Patent Solid Steel Shovels and Spades.
Lawson & Brenizer.—Keystone Forks.
W. T. Menerean & Co.—Stair Rods, Dog Collars, &c.
Nicholson File Co.
Peck Bros. & Co.—Brass Cocks.
Patton Manufacturing Co.—Enameled and Finished Stoneware, &c.
Penfield, Block & Co.—Tackle Blocks.

Harvey W. Peace Co.—Hand, Rip and Panel Saws.
H. W. Reed—Brick and Plastering Trowels, Shoe Knives, &c.
Scott Manufacturing Co.—Peach and Apple Parers, Ice Creepers, &c.
Henry Seymour Cutlery Co.—Seymour's and Massachusetts Shears.
B. Seitz.—Root Hammers.
Underhill Edge Tool Co.—Hatchets, Adzes, &c.
Walker Horse Shoe Co.—Patent Horse and Mule Shoes.
R. Wallace & Son, Manufacturers.—Plated Ware.
Wheeling Hinge Co.—Wrought Goods.
Woodruff, Miller & Co.—Ox Shoes.
J. W. Williams & Son.—Thimble Skins.
Zimmerman Shutter Fasteners.



BUFFALO HAMMER CO., Buffalo, N. Y., U. S. A., Manufacturers of a full line of
Solid Cast Steel Hammers, Sledges, Mauls,



RAILROAD TRACK TOOLS, &c.

Every Hammer or Tool having our name is fully warranted. Catalogues and discounts sent on application.

Scott's Rotary Knife Peach Parer

THE ONLY PEACH PARER, THE BEST APPLE PARER.

Made in Two Sizes: "FAMILY" and "MAMMOTH"

—ALSO—

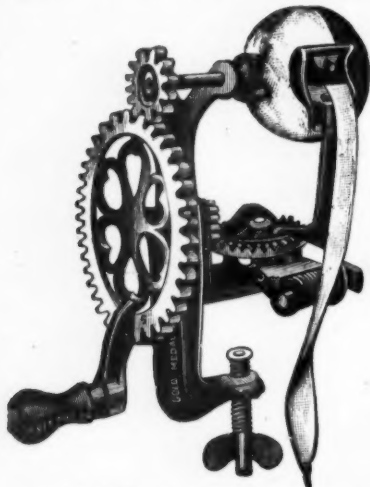
"IMPROVED VICTOR" Apple Parer, Corer and Slicer.

"ORIOLE" Apple Parer, Corer and Slicer.

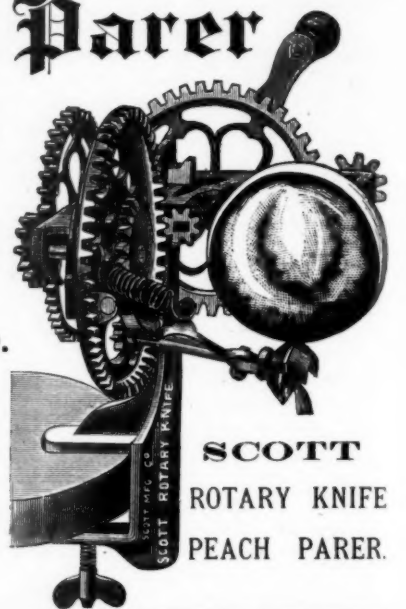
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"UNIVERSAL" and "NEW IDEA" Can Openers.

SCOTT MANFG. CO., Baltimore, Md.



GOLD MEDAL APPLE PARER.

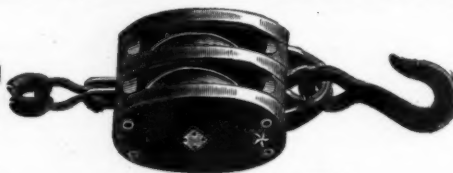
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ROTARY KNIFE
PEACH PARER.

BAGNALL & LOUD BLOCK CO. BOSTON, MASS.

Largest Manufacturers of Tackle Blocks in the World.

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TACKLE BLOCKS.

Send for the Celebrated
STAR BRAND.

Improved Harcourt Patent Block.

Send for Catalogue
No. 5.

CLASP OPEN.



Improved Self-Locking Link Snatch Block.



Improved Self-Adjusting Roller Bushed Iron Sheave.

BOLLINGER'S
IMPROVED

Turbine Water Wheels.

—Flour Mill, Dredging and Saw Mill Machinery.—

Shafting, Pulleys, Hangers, Couplings,

—BOXES AND GEARING.—

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Yacht Engines.
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OF ALL KINDS AND FOR EVERY DUTY.

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OF EVERY DESCRIPTION.

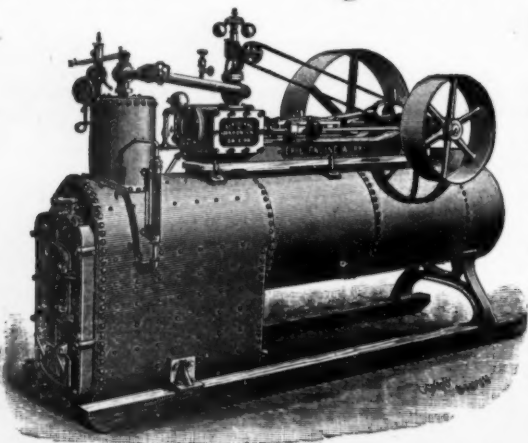
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YORK, PA.

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Cleveland & Hardwick,
ERIE, PA., U. S. A.Stationary,
Detached,
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Semi-Portable,
Agricultural,Portable,
Stationary,
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only; the

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Agents in all Cities. Send for Trial Belt.

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HARDWARE.

Baltimore WHOLESALE Prices.

ANVILS.	
Eagle and Vulcan.....	10 lb. to c. dis 20%
Wright's.....	9 1/2%
Armstrong's Mouse Hole.....	10 1/2%
Trenton.....	10 1/2%
Wilkinson's.....	10 1/2%
AUGERS AND BITS.	
Conn. Valley Mfg. Co.....	extra, 60¢ to 10¢
Douglas Mfg. Co.....	No. 1, 60¢ to 10¢
Cook's Douglas Mfg. Co.....	dis 60¢ to 10¢
Griswold.....	dis 50¢ to 10¢
Patent Solid Heads.....	dis 25%
Russell Jennings' Auger, Dowell, Machine-	
Dowel and Hand Rail Bits.....	dis 10¢ to 10¢
Ives' Jennings' Bits.....	dis 40¢ to 10¢
Expansive Bits, Clark's small, 1 1/2", large, 2 1/2".....	dis 25%
Expansive Bits, Ives'.....	dis 33 1/2%
Expansive Bits, Blake's.....	dis 40%
Hollow Augers, Ives'.....	dis 25%
Hollow Augers, Douglas.....	dis 25¢ to 10¢
Hol. Aug., Bonney's Adjust., No. 4, dis 25¢ to 10¢	
Hol. Aug., Stearns' Adjust., No. 4, dis 25¢ to 10¢	
Hol. Aug., Ives' Expansive, each \$4.50, dis 25¢ to 10¢	
Hol. Aug., Universal Expansive, each \$4.50, dis 25¢ to 10¢	
Wood's.....	dis 25%
Gimlet Bits.....	\$7.50 gross, dis 50%
Gimlet Bits, Diamond.....	dis 1.25, dis 40%
Double Cut Gimlet Bits, Shephardson's.....	dis 40%
Double Cut Gimlet Bits, Douglas.....	dis 40%
Double Cut Gimlet Bits, Ives'.....	dis 50%
Morse's Bit Stock Drill.....	dis 40¢ to 10¢
L'Hommedieu's Ship Augers.....	dis 15%
AWL HAFES.	
Sewing Brass Ferrule.....	\$3.50 gross—dis 40¢ to 10¢
Patent Sewing, Short.....	\$1 gross—dis 40¢ to 10¢
Patent Sewing, Long.....	\$1.20 gross—dis 40¢ to 10¢
Patent Peg, Plain Top.....	\$1.20 gross—dis 40¢ to 10¢
Patent Peg, Leather Top.....	\$1.20 gross—dis 40¢ to 10¢
AWLS, BRAD SETS, &c.	
Awls, Sewing, Common.....	75¢ to \$1
Awls, Shouldered Peg.....	75¢ to \$1
Awls, Patent Peg.....	50¢ to \$1.50
Awls, Shouldered Brad, gross \$2.70—dis 25¢ to 10¢	
Awls, Handled Brad.....	\$7 gross—dis 25¢ to 10¢
Brad Sets, Aiken's.....	dis 12¢ to 10¢
Brad Sets, No. 42, \$10.50; No. 43, \$12.50.....	dis 70%
Brad Sets, Stanley's Exc., No. 1, \$9.60, dis 30¢ to 10¢	
Brad Sets, Stanley's Exc., No. 2, \$4.80, dis 30¢ to 10¢	
Brad Sets, Stanley's Exc., No. 3, \$7.80, dis 30¢ to 10¢	
AXES.	
Collins & Co.....	\$7.25; beveled, \$7.75
Cohoes Mfg. Co.....	\$7.25; beveled, \$7.75
Lippincott or Mann's.....	
Single Bit, 1/2 to 5/8 and under.....	dis 65¢ net
Single Bit, 1/2 to 6 and over.....	dis 70¢ net
Single Bit, beveled.....	dis 50¢ net
Double Bit, 1/2 to 5/8 and under.....	dis 120¢ net
Double Bit, 1/2 to 6 and over.....	dis 130¢ net
Double Bit, beveled.....	dis 100¢ net
Second quality Axes.....	50 cts. less than above
AXLES.	
Sheldon & Co., iron.....	55¢ off
steel.....	55¢ off
AXLE GREASE—Fraser.....	10¢ lb.
BALANCES.	
Spring Balances.....	dis 50%
BELLS.	
Hand, Light Brass.....	dis 75¢ to 10%
Hand, White Metal.....	dis 60%
Hand, Silver Chime.....	dis 20¢ to 10%
Hand, Globe (Cone's Patent).....	dis 25¢ to 10%
Gong, Abbe's.....	dis 20¢ to 10%
Gong, Yankee.....	dis 20¢ to 10%
Gong, Barton's.....	dis 20¢ to 10%
Leon Reading.....	dis 25¢ to 10%
Pull, Brook's.....	dis 50¢ to 10%
Crank, Taylor's.....	dis 25¢ to 10%
Lever, Sargent's.....	dis 25¢ to 10%
Bloomfield.....	dis 25¢ to 10%
Lever, K. & E. M. Co's.....	dis 45¢ to 10%
Call.....	dis 25%
Cow, Common Wrought.....	dis 25¢ to 10%
Cow, Western, Sargent's List.....	dis 25¢ to 10%
Cow, Kentucky, Sargent's List.....	dis 25¢ to 10%
Cow, Moore's or Dodge's, Genuine Ky., new list:	
Nos. 0 1 1/2 2 3 5 6 Hog 1 dis. 70	
\$12 \$10 \$8 \$7 \$4 \$3.50 \$2.50 \$5	
Cow, Texas "Star".....	dis 40%
BELLINGS.	
Blacksmith's Common.....	dis 50¢ to 10%
Molder's.....	dis 25%
Hand Bellows.....	dis 25%
BLIND FASTENERS.	
Francis.....	dis 20%
Mackrell's.....	dis 20%
Van Sand's Screw Pattern.....	dis 20%
Van Sand's Old Pattern.....	dis 20%
Merriman's.....	dis 20%
Zimmerman's, 10 1/2 in.....	dis 20%
Zimmerman's, 9 in.....	dis 20%
BLIND STAPLES.	
Harbed, 1/2 in. and larger.....	dis 11¢ net
Harbed, 3/8 in.....	dis 13¢ net
BLOCKS.	
Penfield Blocks.....	dis 50%
Bagnall & Loud.....	dis 50%
BOLTS.	
Cast Iron Barrel Shutter, &c.....	dis 55¢ to 10%
Cast Iron Chain (Sargent's list).....	dis 60¢ to 10%
Wrought Barrel.....	dis 55¢ to 10%
Wrought Square.....	dis 55¢ to 10%
Wrt. Shutter, all Iron, Stanley's list.....	dis 50¢ to 10%
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 50¢ to 10%
Wrought Shutter, Sargent's list.....	dis 55¢ to 10%
Wrought Sunk Flush, Sargent's.....	dis 65¢ to 10%
Wrought Sunk Flush, Stanley's.....	dis 40¢ to 10%
Wrought B. K. Flush, Stanley's.....	dis 50¢ to 10%
Carriage and Tire, Common, new list.....	dis 80%
Carriage and Tire, Philadelphia Pattern.....	dis 80%
Carriage Bolts, Clarke's.....	dis 75¢ to 10%
Norway.....	dis 75¢ to 10%
R. B. & W. Carriage (old list).....	dis 65%
Tire, American Screw Co's., Phila.....	dis 80%
Tire, "Bay State".....	dis 65¢ to 10%
Eagle Philadelphia Tire Bolt.....	dis 9 1/2%
Stove.....	dis 70%
Plow.....	dis 60¢ to 10%
Machine.....	dis 75%
Bolt Ends and Lag Screws.....	dis 75%
BONAX.	
15¢ lb. net.	
BRACES.	
Q. S. Backus.....	dis 50%
Barber's.....	dis 40¢ to 5%
Spofford's Patent.....	dis 50¢ to 5%
Ive's Patent Braces.....	dis 50%
Common Ball (American).....	dis 55%
Amidon's.....	dis 50%
BORING MACHINES—WITHOUT AUGERS.	
Sweet & Clark upright, 3.60 angular.....	4.40 net
Lawrence.....	3.00 net
Hubbard.....	3.00 net
Phillips, with Augers.....	7.00 net
BRACKETS.	
Shelf, plain.....	dis 50¢ to 10%
Shelf, fancy.....	dis 55¢ to 10%
BRIGHT WIRE GOODS.	
New list.....	dis 70¢ to 10¢ to 10%

BULL RINGS.	
Union Nut Co.....	dis 55%
Sargent's.....	dis 60¢ to 10%
Humason, Beckley & Co's.....	dis 60¢ to 10%
BUTTS.	
Wrought Brass.....	dis 70%
Cast Brass, Fast Joint.....	dis 20¢ to 10%
Cast Brass, Loose Joint.....	dis 10¢ to 10%
Fast Joint, Narrow.....	dis 60%
Fast Joint, Broad.....	dis 60%
Loose Joint.....	dis 70%
Loose Joint, Japanned.....	dis 70%
Loose Joint, Jap, with Acorns.....	dis 70%
Parliament Butts.....	dis 70%
Mayer's Hinges.....	dis 70%
Loose Pin, no Acorns.....	dis 70%
Loose Pin, Acorns.....	dis 70%
Loose Pin, Acorns, Japanned.....	dis 70%
Loose Pin, Acorns, Jap'd, Plated.....	dis 70%
FROUGHT IRON.	
Fast Joint, Narrow.....	dis 65%
Fast Joint, Lt. Narrow.....	dis 65%
Fast Joint, Broad.....	dis 65%
Loose Joint, Broad.....	dis 65%
Table Butts, Back Flaps, &c.....	dis 65%
Inside Blind, Regular.....	dis 65%
Inside Blind, Light.....	dis 65%
Loose Pin, Wrt.....	dis 65%
Loose Pin, Light.....	dis 65%
GEAR'S SPRING AND BLANK BUTTS.	
Hart Manufacturing Co.....	dis 30%
American Spring Hinge Co's.....	dis 25%
Gem Spring Hinges.....	dis 25%
Blind Butts, Shepard's, Nos. 30 and 60.....	dis 20%
Blind Butts, Shepard's, No. 050.....	dis 20%
Blind Butts, Shepard's, No. 75.....	dis 20%
Blind Butts, Lull & Porter.....	dis 80%
Blind Butts, Huffer.....	dis 50¢ to 10%
Blind Butts, Clark's, Nos. 1, 3, 5.....	dis 80%
Standard Lull & Porter.....	dis 75¢ to 10%
HOW PINS.	
Humason, Beckley & Co's.....	dis 55¢ to 5%
Sargent & Co's.....	\$19.70 and 21.40; dis 60¢ to 10%
Hotchkiss.....	dis 25%
BUTCHER'S CLAWERS.	
Humason & Beckley Mfg. Co.....	dis 25%
Bradley's.....	dis 25%
Beatty's.....	dis 25%
1 2 3 4 5 6 7 8	
\$16.50 19.00 21.50 24.00 27.00 30.00 33.50 36.50	
CAN OPENERS.	
American.....	gross \$7.50, dis 10%
New Idea.....	\$15.00 gross
No. 4, French.....	dis 20.25, dis 55%
No. 5, Iron Handle.....	gross \$7.50, dis 10%
Sardine Scissors.....	dis 20.00, dis 55%
Sprague, No. 1, \$2; No. 2, 2.25; No. 3, 2.50; dis 50¢ to 10%	
Universal.....	dis 33.00, dis 33 1/2%
CAPS, PERCUSSION, \$1.00.	
U. M. C., F. C. trimmed.....	dis 10¢ to 10%
U. M. C., F. L. ground.....	dis 10¢ to 10%
U. M. C., Cen. fire ground.....	dis 10¢ to 10%
U. M. C., Double W. Proof.....	dis 10¢ to 10%
G. D. & S. B.....	dis 33¢ to 10%
E. B. 1-10, Eley's.....	dis 60¢
Musket, in 1-10's.....	dis 55¢
Hicks Ground Edge in Brass Boxes.....	dis 55¢
CARTRIDGES.	
Rim.....	dis 60%
Central Fire, pistol size.....	dis 40%
"Military.....	dis 1.60
B. B. Caps, Round Halls.....	dis 1.45
"Swaged Conical.....	dis 1.75
NEW LIST ON CARTRIDGES.	
Rim-fire, 22 short.....	\$5 long.....\$6.00
"38".....	dis 15.50
"38".....	dis 18.00
"41".....	dis 17.50
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.	
CARDS.	
Horse and Curry, new list, July, 1881.....	dis 10%
Cotton, new list, July, 1881.....	dis 10%
Wool, new list, July, 1881.....	dis 10%
CARPET STRETCHERS.	
Cast Steel, Polished.....	dis 50¢ to 10%
Cast Iron, Steel Points.....	dis 50¢ to 10%
Bullard's.....	dis 25%
CASTERS.	
Red.....	dis 55%
Plate and Shallow Socket.....	dis 55%
Deep Socket.....	dis 55¢ to 10%
Martin's Patent (Phoenix).....	dis 25%
CATTLE LEADERS.	
Humason, Beckley & Co's.....	dis 60¢ to 10%
Sargent's.....	dis 60¢ to 10%
P. S. & W.....	dis 25¢ to 10%
CHAIN.	
German Halter and coil Chain.....	dis 50¢ to 10%
Trace, Breast and Fancy.....	dis 60%
Oneida Halter Chain (old list).....	dis 45¢ to 5%
Galvanized Pump Chain.....	dis 60¢ net
Jack Chain, Iron.....	dis 70%
Jack Chain, Brass.....	dis 60¢ to 10%
CHALK.	
White.....	gross 60¢ net
Red.....	gross 85¢ net
Blue.....	gross \$1.00 net
White Crayons.....	gross 9¢ net
COTTON LINES.	
Cotton Fish Lines.....	dis 33 1/2%
Cotton Chalk Lines, 30 feet:	
Nos. 11, 13, 15, 17, 20.....	dis 40%
3.30. 3.60. 4.00. 4.50. 5.25.....	dis 40%
CHISELS.	
Socket Framing, Crossmans.....	dis 65¢ to 5%
Socket Firmer, Crossmans.....	No. 1. Extra.
Socket Framing & Firmer.....	75¢ to 75%
Socket, Douglas.....	75¢ to 75%
Socket, Ohio Tool Co.....	75¢ to 75%
Socket, Peck, Stone & Wilcox.....	75¢ to 75%
Socket, Corner.....	75%
Tanged Firmers, Douglas.....	dis 40¢ to 45%
Tanged Firmers, Butcher's.....	dis 40¢ to 45%
I. Merrill's Socket and Framing Chisel.....	dis 65¢ to 10%
CLAMPS.	
Iron, Screw, Eagle.....	dis 50%
Iron, Adjustable, Stearns.....	dis 20¢ to 10%
Iron, Cabinet, Sargent's.....	dis 65¢ to 10%
Iron, Carriage maker's, Carr & Crawley.....	dis 25%
CLIPS, AXLE.	
Norway or Best.....	dis 60¢ to 5%
Superior.....	dis 45¢ to 5%
Conestogo.....	dis 60¢ to 10%
Coal Hods—Griffiths.....	dis 40%
COCKS, BRASS.	
Racking, new list.....	dis 55¢ to 10%
Globe, new list.....	dis 55¢ to 10%
Plain Bibbs.....	dis 55¢ to 10%
Ale and Beer, new list.....	dis 55¢ to 10%
COFFEE MILLS.	
Parker's.....	dis 45%
Wilson's.....	dis 40¢ to 10%
Logan & Strobbridge.....	dis 45%
Enterprise Mfg. Co.....	dis 45%
COMPASSES, DIVIDERS, &c.	
Compasses.....	dis 60¢ to 10%
Calipers.....	dis 60¢ to 10%
Dividers.....	dis 60¢ to 10%
Cook's Pencil.....	dis 30%
COOPERS TOOLS.	
Bradley's.....	dis 15¢ to 10%
Barton's.....	dis 30%

(Awarded First-Class Medal at New Orleans.)

STEPHENS' VISES.

With STEEL FACED or SOLID STEEL SLIDING JAW, and ADJUSTABLE ATTACHMENTS. Superior in Make, Grip, Strength and Durability, and more economical in Time and Labor than any other Vise. Jewelers, Machinists in general, and Car and Locomotive Builders in particular, will find them especially adapted to their need. Also STEPHENS' PATENT PLANNER CHUCKS. Sold by hardware, machinery and tool dealers. Send for descriptive circular and price-list.

MELVIN STEPHENS, Proprietor,
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Established in 1849.

Jewett Coal Vases

JAPANNED and POLISHED BRASS.

NEW AND ARTISTIC DESIGNS.

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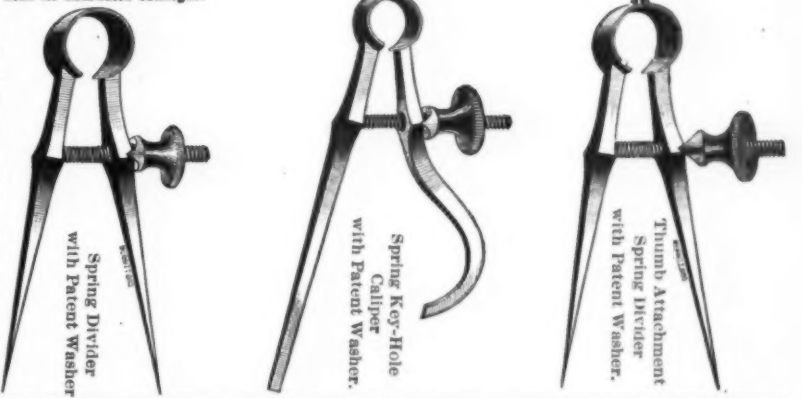
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These goods have recently been greatly improved. They are now made throughout of

FORGED STEEL.

The advantage of this cutter is seen at a glance. The adjustable jaws are its main feature. These are made of the best tool steel, and are brought to a keen cutting edge before being tempered. The cutting quality is unsurpassed. Whenever they become dulled by use, they can easily be removed, by driving from the end showing price-mark, ground, and as easily replaced. This may be repeated as often as expedient; or they can be replaced by duplicate jaws, thus obviating the necessity of purchasing new cutters. Five sizes 6, 8, 10, 12 and 14 inch. If your merchant does not keep them, address

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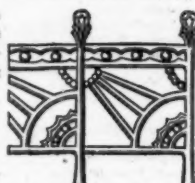
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EXCHANGE PLACE
AND
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WIRE GOODS OF ALL KIND
Wrought-iron Fencing, Cresting and Hardware Specialties.
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Manuf'g Company

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Manufacturers of COVERT'S Celebrated Harness Snaps, Swivel Snaps, Open Eye Bit and Chain Snaps, Snap and Thimble for Horse and Cattle Ties, ROPE GOODS, consisting of Web and Rope, Halters, Rope Horse and Cattle Ties, Web Horse Ties, Halter Leads, Driving Reins, Weight Cords, Hammock Ropes, Hitching Cords, Lariat Tethers and Picket Pins, Also, Leather Horse Ties, Etc. Breast Chains, Heel Chains, Chain Cow Ties, Halter Chains, Martingale Chains, Rein Chains, Post Chains, Bus Chains, Back or Cart Chains, Log Chains, Stake Chains, Trace Chains. Also, STUD, CABI E and COIL CHAINS, CHAINS OF ALL KINDS

PATENT ADJUSTABLE SOLDERING IRONS.

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MACHINISTS'

Hardware Specialties

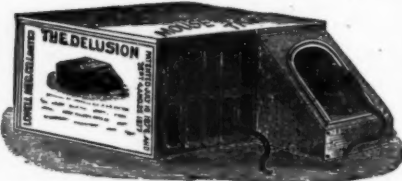
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Springfield, - Mass.

DELUSION MOUSE TRAP

—52,932 Sold in One Month.—

THE ONLY SUCCESSFUL
Self-Setting TRAP.



"The mouse goes in to get the bait
And shuts the door with his own weight,
And then he jumps right through a hole
And thinks he's out; but, bless his soul,
He's in cage, somehow or other,
And sets the trap to catch another."

LOVELL MANUFACTURING CO., Limited, ERIE, PA.



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THE DOMESTIC CLOTHES TONGS COMBINATION

For lifting hot clothes out of boiling water while washing. For holding cloth or sponge while cleaning windows, walls, ceilings, etc., thus avoiding climbing outside of windows and the use of step-ladders. For placing or removing picture-cords, window-curtains, etc. Price low. Sells on sight. Every family wants one. DOMESTIC NOVELTY CO., 162 W. 4th St., CINCINNATI, OHIO

Clancy's No. 800, per gross.....	dls 20%
Nimick & Brittan Mfg. Co.....	dls 90%
SASH CORD.	
Common	No. 14, net
Paten Braided Lake Hemp.....	No. 17c, net
Silver Braid, Lake White Cotton.....	No. 30c, dis 10 %
Silver Braided Lake Drab Cotton.....	No. 30c, dis 10 %
Silver Lake Cable Laid, Bengall Unbleached Hemp, 17 cts.....	dis 10 %
Russian Hemp, 19 cts.....	dis 10 %
Italian Hemp, 21 cts.....	dis 10 %
Samson Braided, white cotton.....	dis 30 %
" " drab cotton.....	dis 30 %
SASH WEIGHTS.	
Solid Eyes, in 500-lb. lots and over, No. 15c, net	do 15c
SAUSAGE STUFFERS OR FILLERS.	
Viles.....	No. 12, No. 14, No. 16, No. 18, No. 20, No. 22, No. 24, No. 26, No. 28, No. 30, No. 32, No. 34, No. 36, No. 38, No. 40, No. 42, No. 44, No. 46, No. 48, No. 50, No. 52, No. 54, No. 56, No. 58, No. 60, No. 62, No. 64, No. 66, No. 68, No. 70, No. 72, No. 74, No. 76, No. 78, No. 80, No. 82, No. 84, No. 86, No. 88, No. 90, No. 92, No. 94, No. 96, No. 98, No. 100
Enterprise Mfg. Co.....	dis 30 %
Monarch.....	dis 40 %
SAWS.	
Boynton's Lightning Cross Cuts, new list.....	dis 40 %
Boynton's Circular and Mill.....	dis 40 %
Boynton's Ice.....	dis 25 %
Boynton's Lightning Hand, Panel and Rip.....	dis 25 %
Diston's Circular.....	dis 40 %
Diston's Mill.....	dis 40 %
Diston's Cross Cut, Panel and Rip.....	dis 40 %
Diston's Hand, Panel and Rip.....	dis 40 %
Hubbard, Bakewell & Co., Circular Saws.....	dis 40 %
Hubbard, Bakewell & Co., One-Man's, X Cut.....	dis 40 %
Hubbard, Bakewell & Co., Mill Saws.....	dis 40 %
Peace Circular and Mill.....	dis 40 %
Peace Hand, Panel and Rip.....	dis 25 %
Peace Cross Cuts.....	dis 35 %
Peace Band Saws, all widths.....	dis 10 %
Weber Cross Cut, with handles.....	dis 25 %
Griffin's Hack Saws and Blades.....	dis 30 %
SAW FRAMES.	
White.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Saw Rods.....	No. 10 list, dis 10 %
SAW SETS.	
Stillman's Genuine, No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100	
Stillman's Imitation.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Common Lever.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Leach's.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Hammer, Hotchkiss.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Aiken's Genuine.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Aiken's Imitation.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Diston's.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Morrill's.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
SCALES.	
Hatch, Counter, No. 171.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Hatch, Tea, No. 161.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Union Platform, Keystone.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Chicago Scale Co.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Fairbanks.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Forsyth Scale Co.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Howe's.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Chatillon's Grocers.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30, No. 31, No. 32, No. 33, No. 34, No. 35, No. 36, No. 37, No. 38, No. 39, No. 40, No. 41, No. 42, No. 43, No. 44, No. 45, No. 46, No. 47, No. 48, No. 49, No. 50, No. 51, No. 52, No. 53, No. 54, No. 55, No. 56, No. 57, No. 58, No. 59, No. 60, No. 61, No. 62, No. 63, No. 64, No. 65, No. 66, No. 67, No. 68, No. 69, No. 70, No. 71, No. 72, No. 73, No. 74, No. 75, No. 76, No. 77, No. 78, No. 79, No. 80, No. 81, No. 82, No. 83, No. 84, No. 85, No. 86, No. 87, No. 88, No. 89, No. 90, No. 91, No. 92, No. 93, No. 94, No. 95, No. 96, No. 97, No. 98, No. 99, No. 100
Chatillon's Eureka.....	No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 1

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Arkansas.....dis 10¢

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Iron.....dis 60¢
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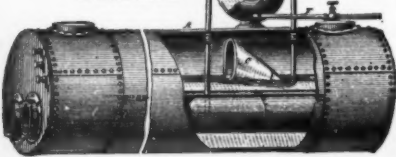
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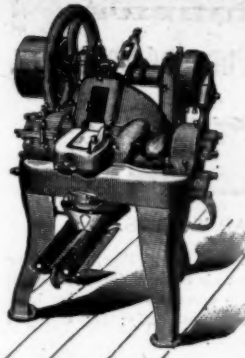
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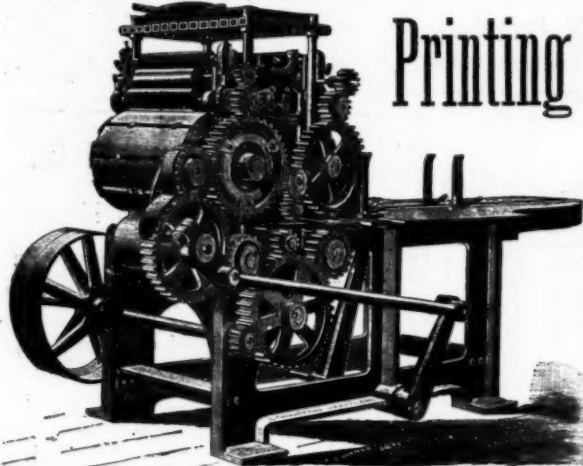


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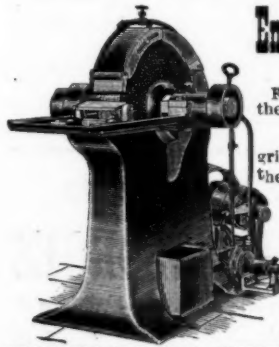
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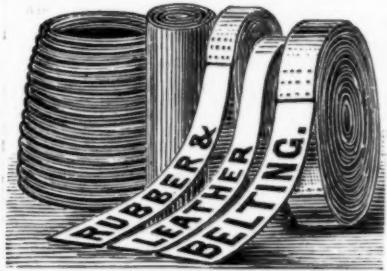
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Fig. 134.

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6 "
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50 "
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125 "



Fig. 136.

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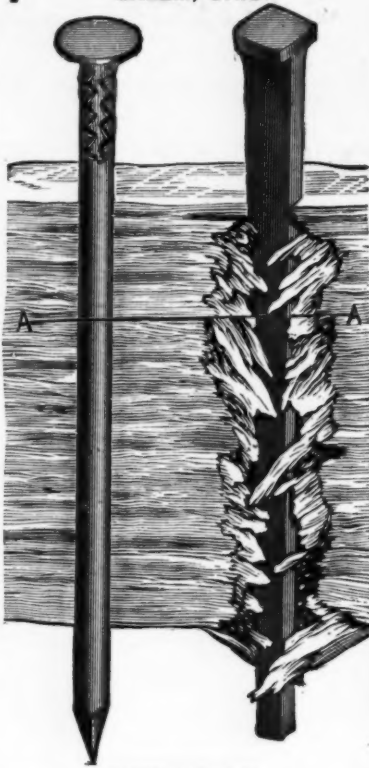
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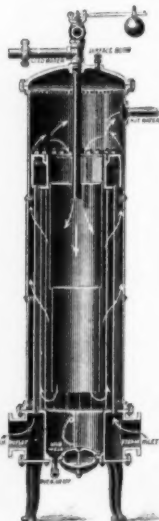
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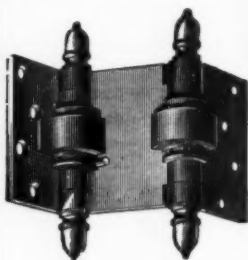


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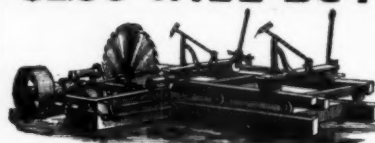
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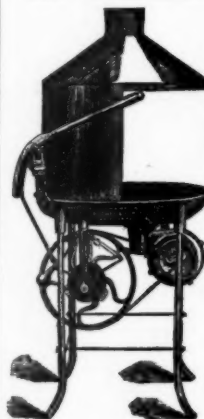
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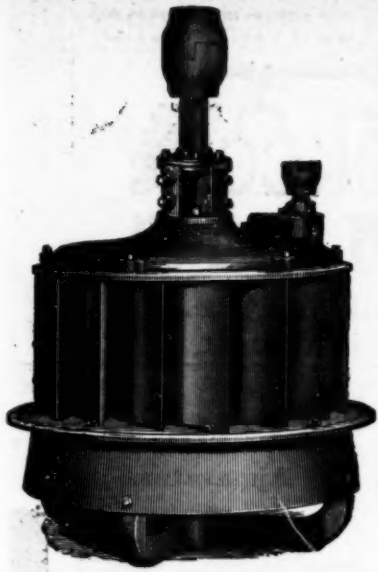
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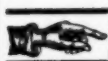
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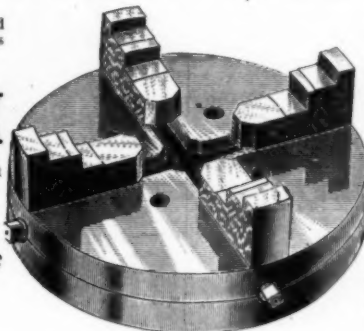
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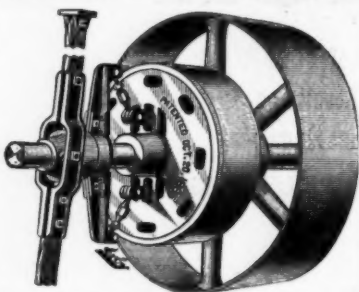
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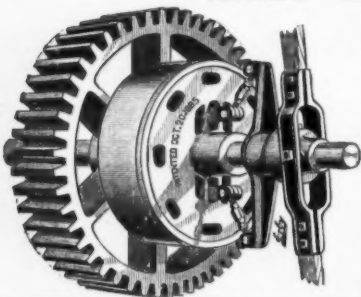
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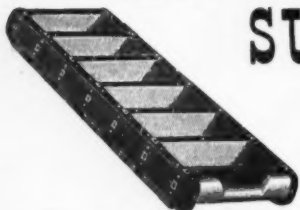
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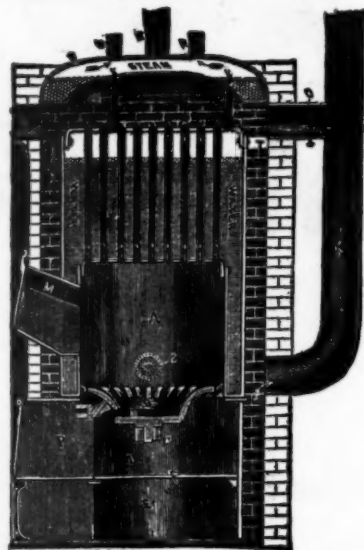
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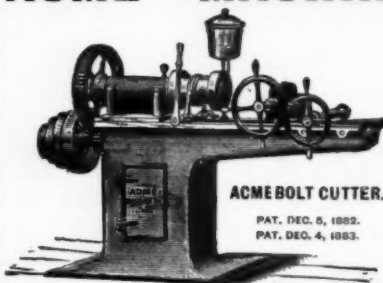
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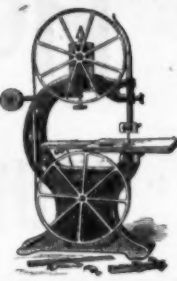
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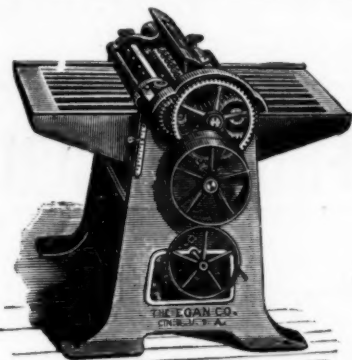
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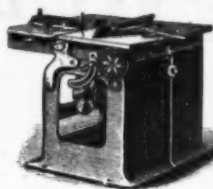
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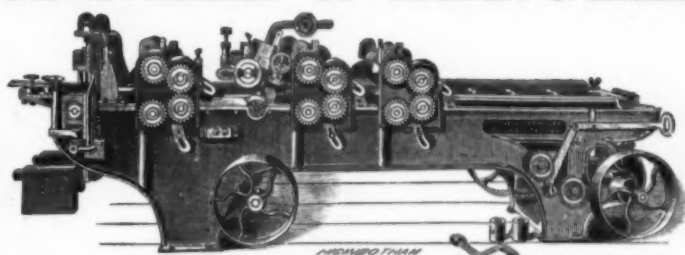
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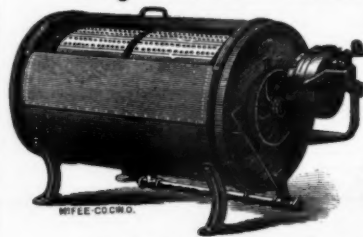
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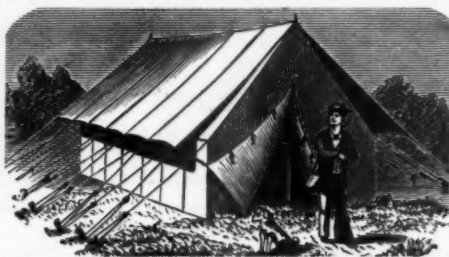
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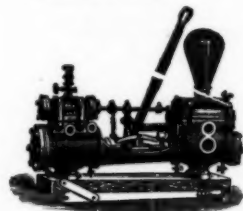
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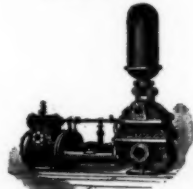
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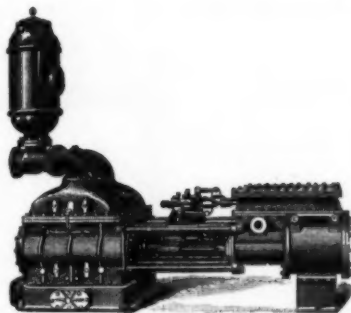
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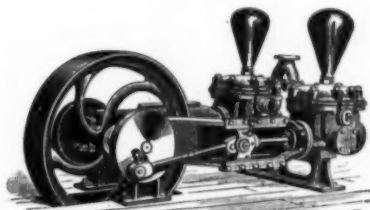
PRESSURE PUMP.



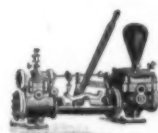
FIRE PUMP.



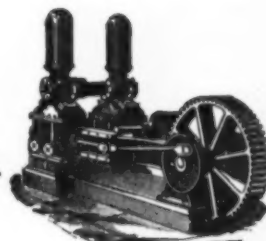
COMPOUND PUMPING ENGINE.



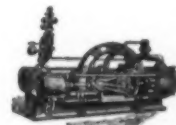
DUPLEX BELT PUMP.



BOILER FEED PUMP.



GEARED POWER PUMP.



AIR COMPRESSOR.

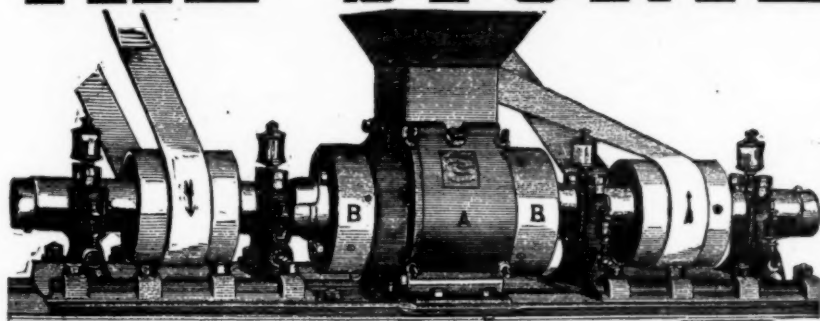
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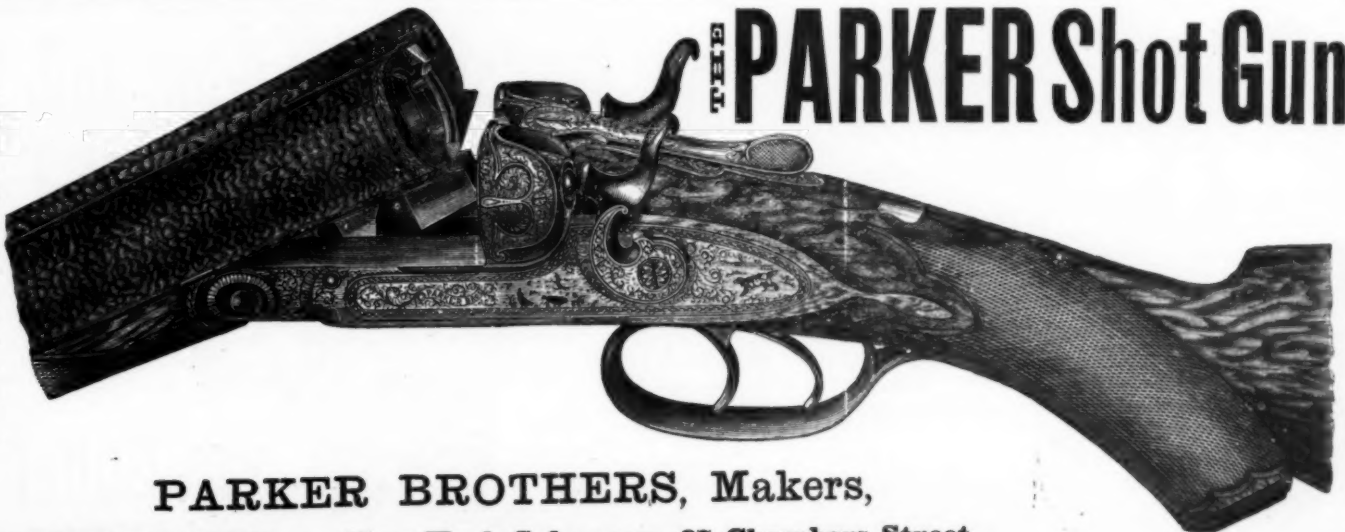
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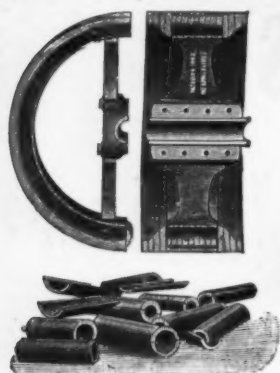
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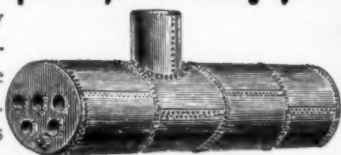
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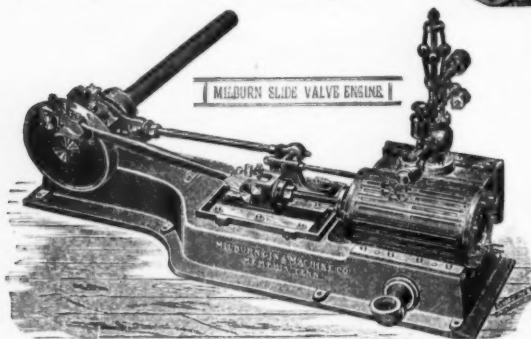
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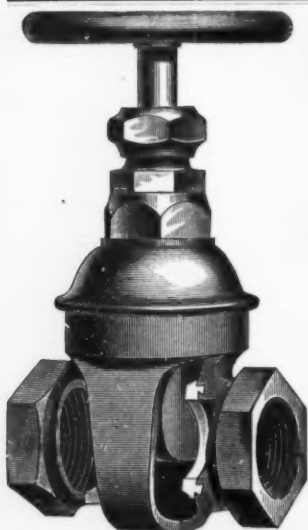
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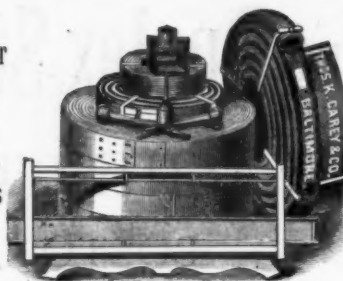
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We know that it is unnecessary for us to inform you how untrue all such statements are, but we desire the consumers in the States to know that no credit should be given to such statements, as we make only the "Camaret" Roofing Plate for your house, you having our entire make of this Plate, as well as the control of same in America.

Further, we will state that we have not made nor sold a box of "Camaret" Roofing Plate to any house in England or America except yourselves since we gave you over a year ago control of same; and under no circumstances would we manufacture this Plate for anyone under any other brand.

We trust this letter will have the desired effect of putting an effectual stop to all such misrepresentations in reference to our brand.

Yours truly,

(Signed)

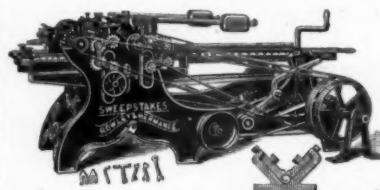
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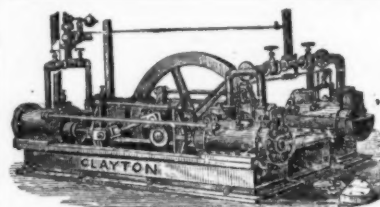
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